C677

VOL. 86 NO. 11

textile bulletin

A Review Of
The Greenville Show

NOVEMBER • 1960

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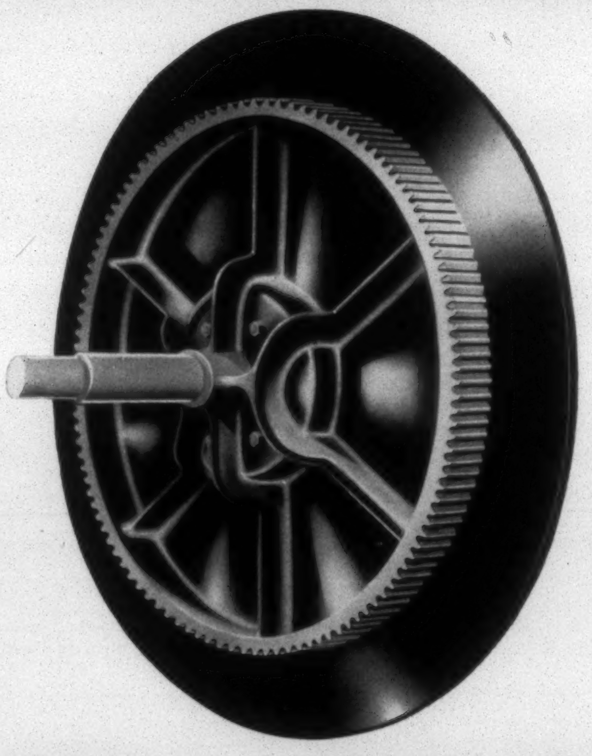
BPA NBP

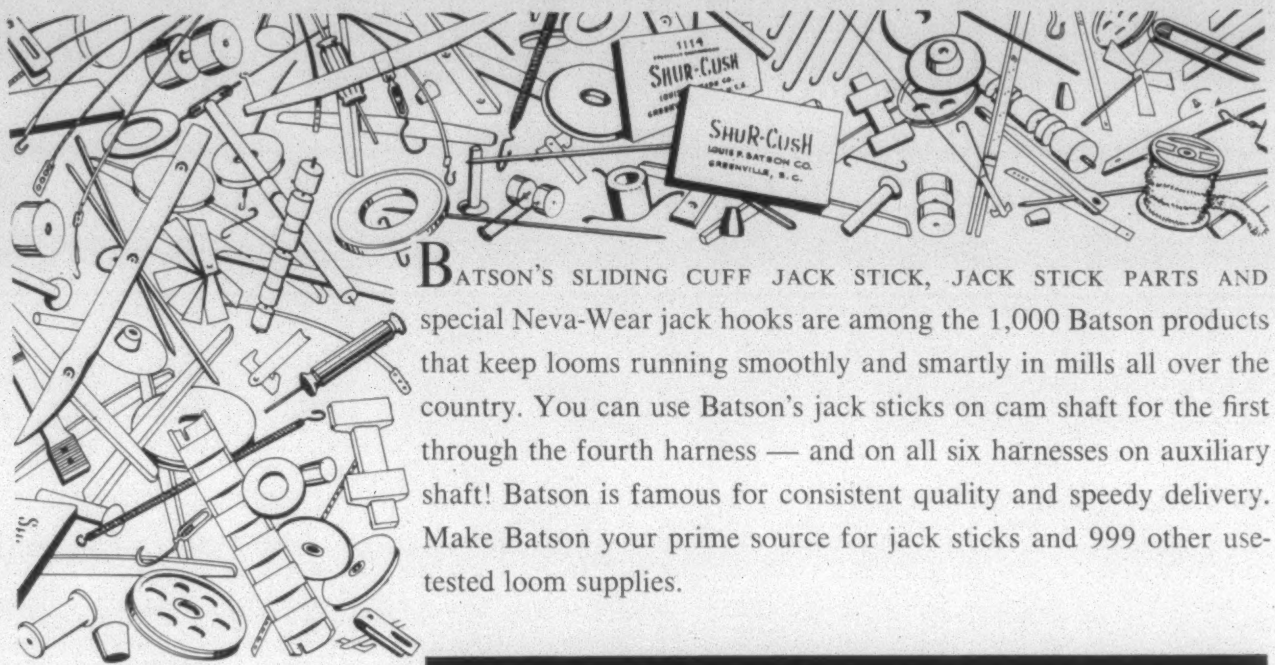


West Point Foundry
Your best source for

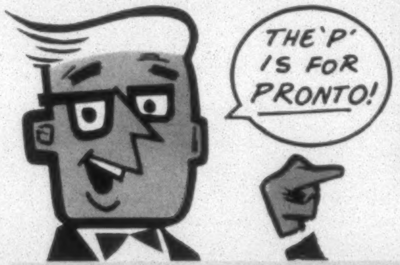
BEAM HEADS & LOOM BEAMS

CAST IRON HEADS: Accurately machined cut-tooth or well molded cast-tooth.
With or without recess for beam barrel. • With friction drum for friction let-off.
All sizes . . . many patterns available for prompt service.
BEAM BARRELS: Wood or metal to your specifications.

WEST POINT *Foundry & Machine Company*
WEST POINT, GEORGIA

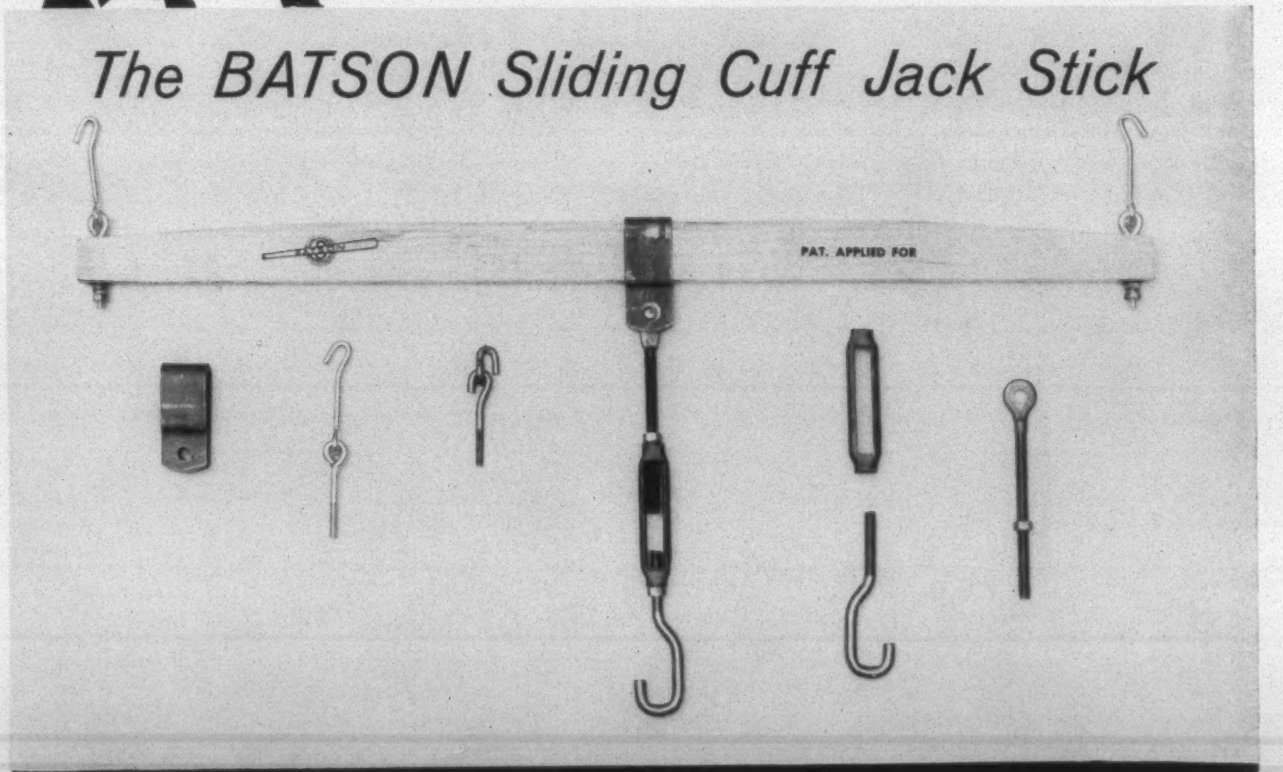


BATSON'S SLIDING CUFF JACK STICK, JACK STICK PARTS AND special Neva-Wear jack hooks are among the 1,000 Batson products that keep looms running smoothly and smartly in mills all over the country. You can use Batson's jack sticks on cam shaft for the first through the fourth harness — and on all six harnesses on auxiliary shaft! Batson is famous for consistent quality and speedy delivery. Make Batson your prime source for jack sticks and 999 other use-tested loom supplies.


THE 'P' IS FOR PRONTO!

Louis P. Batson Company

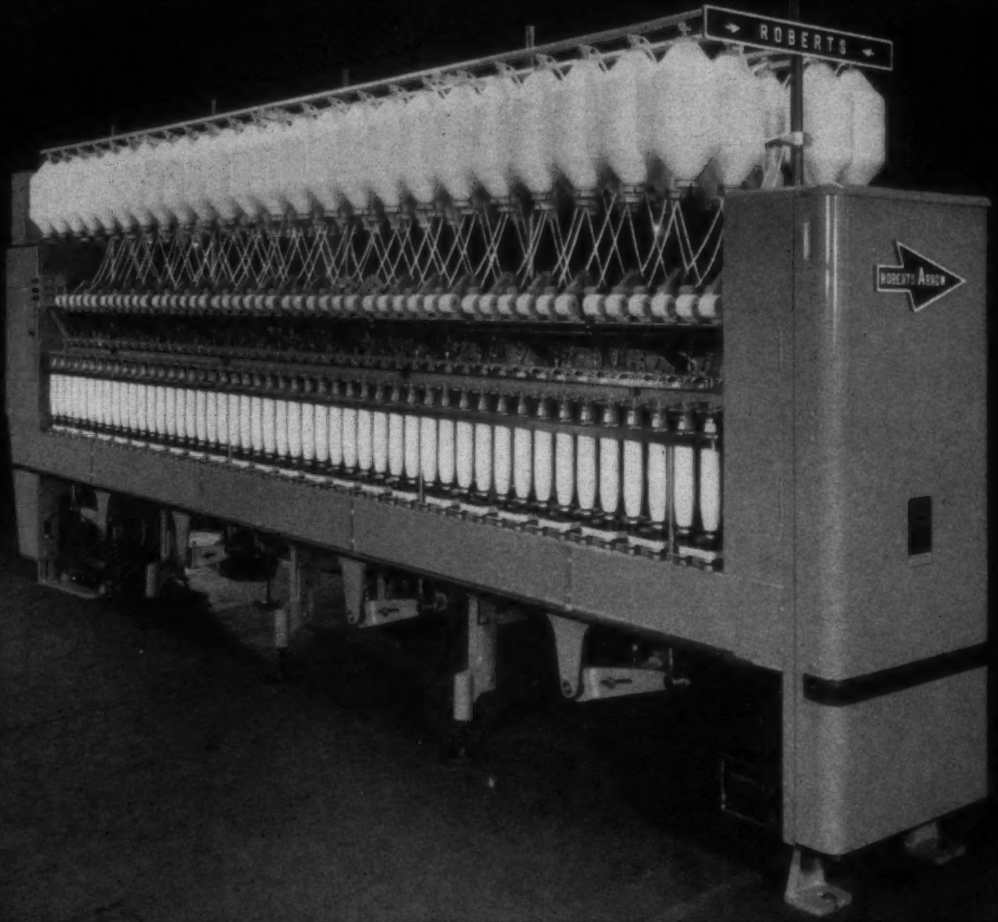
P. O. BOX 772 • GREENVILLE, SOUTH CAROLINA



The BATSON Sliding Cuff Jack Stick

ONE OF A THOUSAND **Batson** USE-TESTED PARTS

ROBERTS ARROW SPINNING



Versatility For All Yarn Counts!

Arrow Spinning Frames are available to run all yarn counts from 2's to 120's. More than 1000 Arrow Frames are in service at large and small mill organizations in the U. S. A.

Several examples are provided at the right which demonstrate the versatility of Arrow Spinning.

The newly refined Arrow offers greatest value in high speed operation, bigger packages, dependable performance, low initial cost, and maintenance-free operation. Arrow Spinning is available for both cotton and worsted systems.

Roberts Technical Service backs up every Roberts installation with intelligent understanding of the mill's requirements and ambitions.

THREE MILLS RUNNING ARROW FRAMES ON A WIDE RANGE OF YARN NUMBERS

- An independent producer of Osnaburgs and Corduroys runs 62 Arrow Frames with 20,000 spindles making 3.25's to 8.25's warp spun filling yarn on 3" rings and 12" bobbins; 8's to 21's warp yarn on 3" and 2½" rings and 12" bobbins; and 14.5's to 22.5's direct spun filling yarn on 1-9/16" rings and 8¾" quills.
- A major mill group uses 50 Arrow Frames with 16,000 spindles to produce 80's to 100's combed long fiber cotton yarn for fine broadcloths on 1¾" rings and 10" bobbins.
- A small carded knitting yarn mill uses 20 Arrow Frames with 5040 spindles to run 26's yarn on 2¼" rings and 11" bobbins.

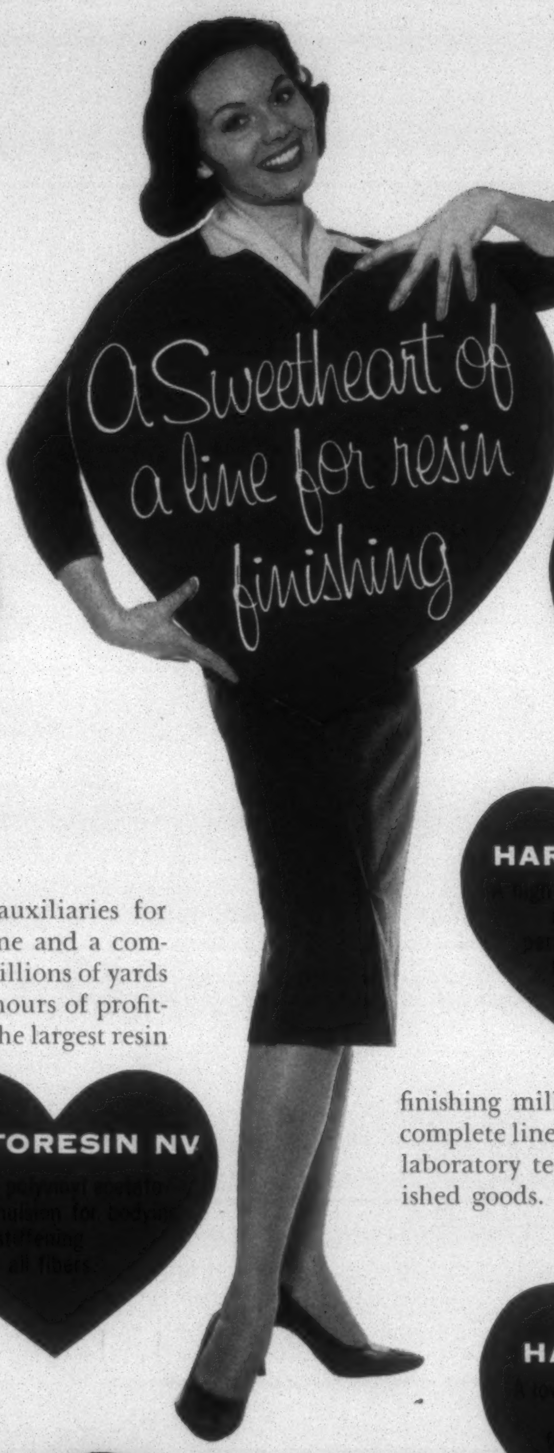
ROBERTS COMPANY
SANFORD, NORTH CAROLINA

. . . and no C & K Loom part is designed, except to fit in most efficiently as part of the whole . . . only the maker of the whole loom has this point of view when designing and producing a loom part . . . it follows that a replacement part had best come from the loom maker, who has his own business at stake in the year after year efficient performance of his product.

CROMPTON & KNOWLES CORPORATION, WORCESTER, MASS.
Charlotte, N. C. • Allentown, Pa. • Crompton & Knowles, Jacquard Supply Co.,
Pawtucket, R. I. • Crompton & Knowles of Canada Limited, Montreal, Que.

Manufacturers of the world's Longest Line of Automatic Box Looms

Crompton & Knowles Corporation
C&K
Worcester, Mass. U.S.A.



HARTOSET E
The most economical resin for shrinkproofing, creaseproofing, embossing, and schreinering cottons and rayon.

CYCLAZONE
A wash-wear resin for finishes requiring maximum resistance to chlorine damage.

HARTORESIN B
A high solids polymeric urea resin for adding permanent body to resin finishes.

The Hart line of resins and auxiliaries for resin finishing is a complete line and a completely tested line—proved on millions of yards of goods through thousands of hours of profitable, trouble-free processing in the largest resin finishing mills in the country . . . plus a complete line of catalysts—and a complete laboratory testing program for your finished goods.

HARTORESIN NV
A stable polyvinyl acetate emulsion for bodying and stiffening all fibers.

SOFTYNE R
The tested resin softener with high scorch resistance, no yellowing.

HARTOSET LF
A low free-formaldehyde modified urea resin for stabilizing finishes on cotton knits.

HARTOPEL R
A composition for use with resin finishes to give durable water repellency and a full hand.

HART PRODUCTS
BASED ON RESEARCH

the Hart Products Corporation
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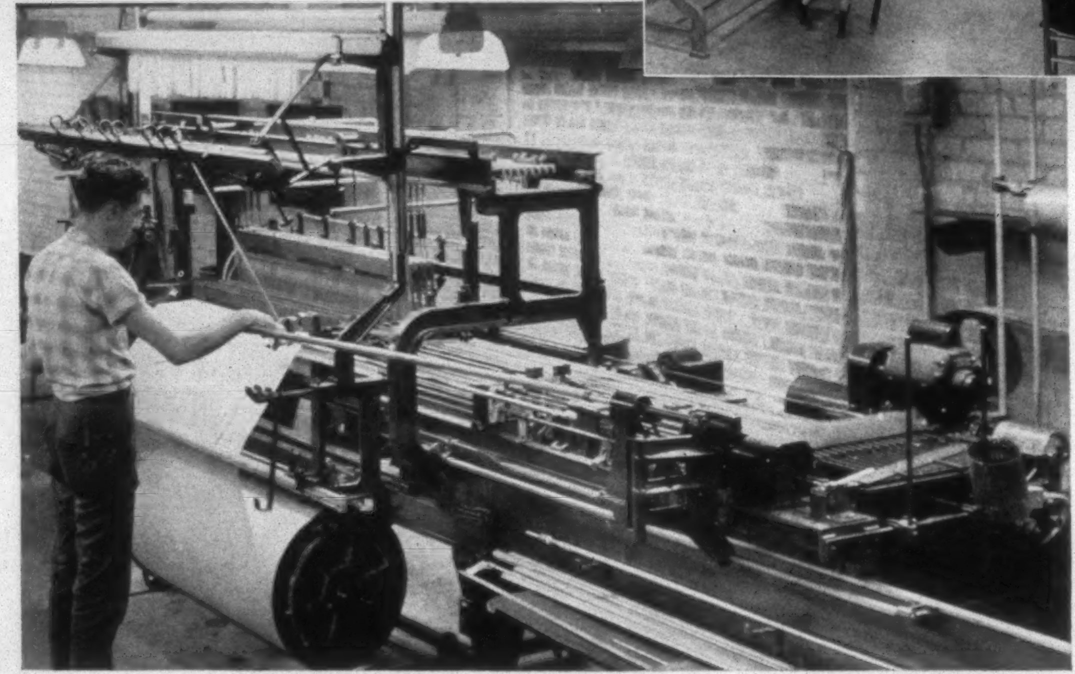
Works and Laboratories, Jersey City, N. J.

IF YOU ARE
ENTERING
YOUR WARPS
LIKE THIS



WE SUGGEST YOU LOOK INTO THE

BARBER-COLMAN
WARP DRAWING MACHINE

With this machine, the time-eating task of drawing-in is speeded up tremendously. A power-driven needle, running at 127 to 230 strokes per minute (depending on the number of weaving elements to be entered), draws each thread in succession through the correct selection of drop wire, heddle, and reed dent. This correct selection is made accurately *and automatically* for each pick by a sequence of mechanical actions controlled by a pattern strip punched in accordance with the designer's draft. Very substantial reductions of drawing-in costs are possible, particularly on patterned goods such as stripes, plaids, and fancy weaves. This *modern method* of replacing warps has enabled many mills, both large and small, to meet the ever-increasing demands for a greater variety of patterns. *Your Barber-Colman representative is qualified to advise you on possibilities in your mill.*

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

BARBER-COLMAN COMPANY
ROCKFORD • ILLINOIS • U. S. A.

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Higashi-Ku
Osaka, Japan

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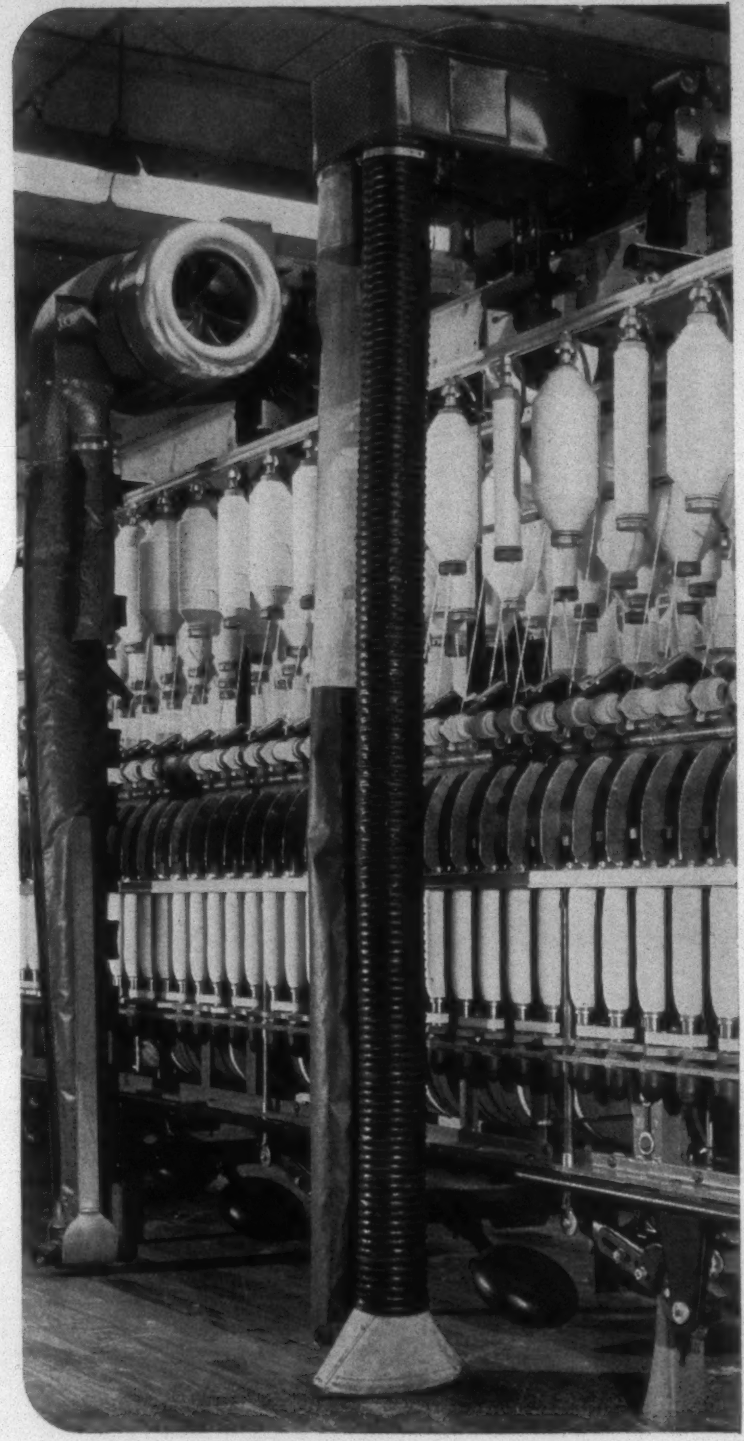
Get peak cleaning efficiency on frames, underframes, overhead and alley areas with

COMPLETE COVERAGE FEATURES

of CROSS-JET FRAME CLEANER

and VACU-PAK FLOOR SWEEPER

with automatic "Stop and Go" protection



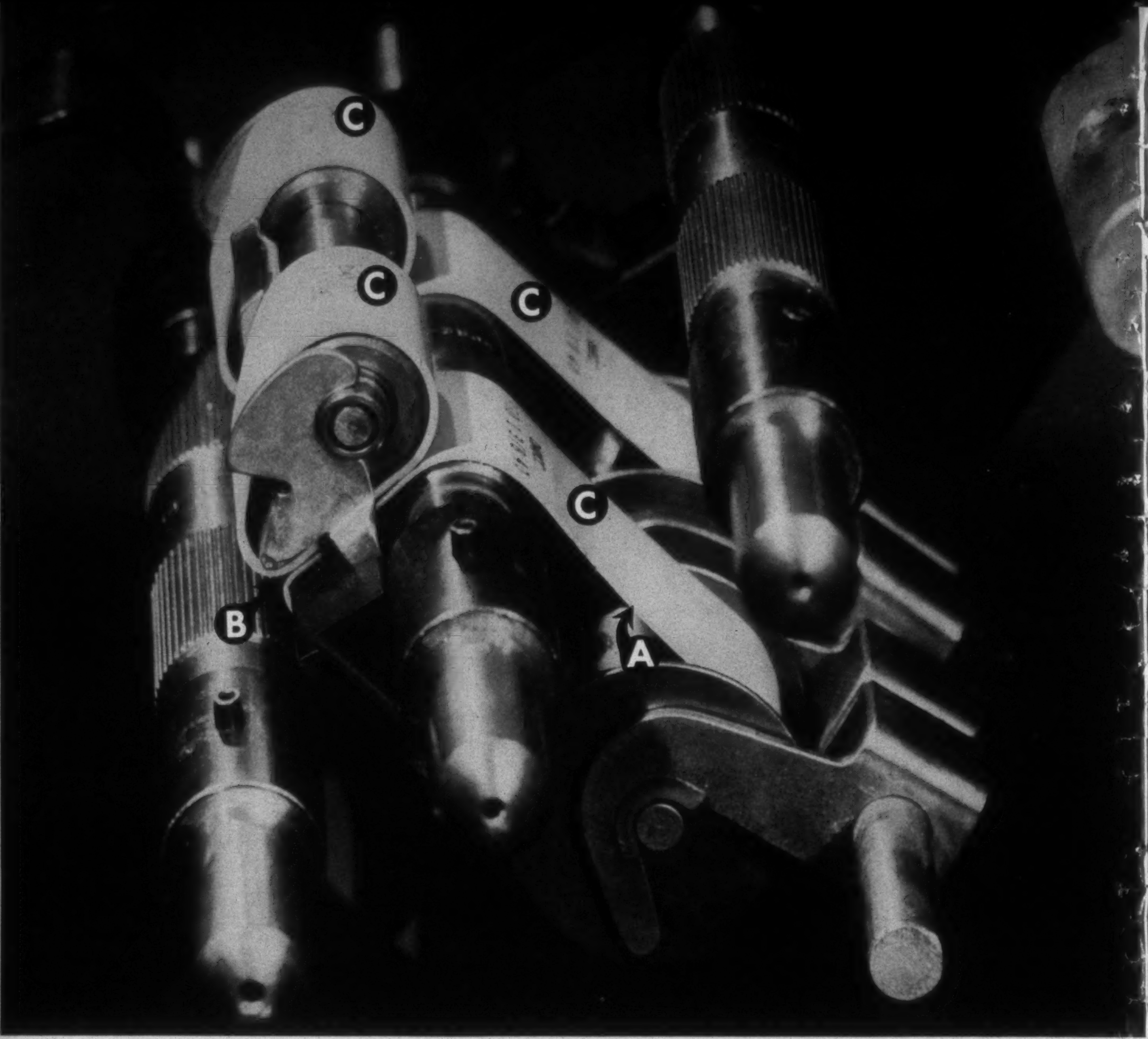
Sweeper automatically stops on contact—then automatically re-starts when free of obstruction.

1. Provides protection to frame and spindles from trunk swinging free of obstacles and back into frame.
2. Provides protection for operator to work efficiently without interruption by traveling trunk.
3. Provides protection against damage to trunk by obstacles in its path.
4. Provides protection against accidents and operating time loss.

Bahnson

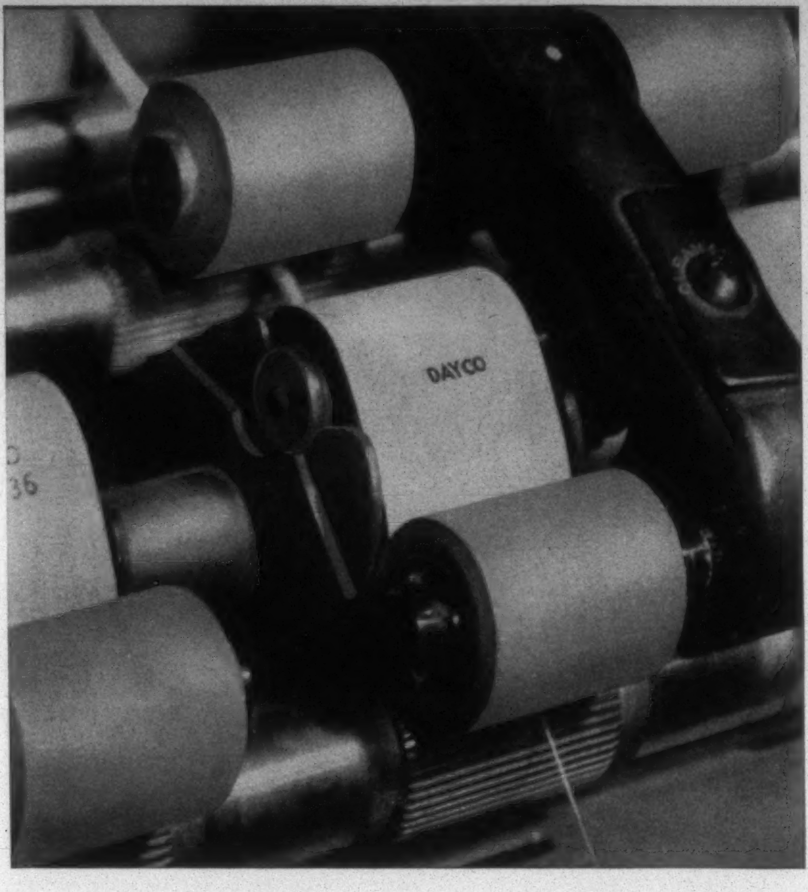
AIR-O-MATION

THE BAHNSON COMPANY • WINSTON-SALEM, N. C.



ACTUAL WORKING MODEL of long-apron system shows: (A) Patented embossed surface for precise coefficient of friction and abrasion-resistance formulated to last for years: (B) Unmatched flexibility at nose-bar for consistently smoother performance and top quality yarn: (C) Guaranteed yarn control due to a cleaner spinning outside surface.

EXCLUSIVE . . . patented by Dayco . . . your only source for this important friction-right improvement in aprons that made possible lower power and increased production. It's another example of Dayco's continuous research program to increase economies and production.



A COT FOR EVERY PURPOSE—as well as a virtually all-purpose cot! That's the great Dayco story to meet every need for surface texture, densities, dimensions, sizes, kinds. Whether man-made fibers or mixtures are your spinning problem, Dayco research in the laboratory and in the field guarantees consistently better results and greater savings.

NEW RECORD-BREAKING SPIN-AND-WEAR PERFORMANCE

with Dayco on any apron system

For super-quality yarn—consistently, month after month—nothing matches Dayco's patented Embossed Apron for long-apron systems. Here's super-smooth drafting action—unequalled flexibility and precision friction surfaces on both sides to meet any and all conditions. No more tucking or jamming at the nose-bar . . . no more ozone breakdown . . . no more abrasive problems for months and months.

Improve your yarn quality . . . up your spinning performance with the pioneer and leader in the field —Dayco!

Ask your Dayco Representative to set up a trial installation. Phone or write Dayco Textile Products Co. (Formerly Dayton Rubber Co., Textile Division) 401 S. C. National Bank Bldg., Greenville, S. C.

Dayco
TEXTILE PRODUCTS CO.
Dayco

Divison of Dayco Corporation

OVERSEAS PLANT: THE DAYTON RUBBER CO. LTD., DUNDEE, SCOTLAND

Dayco All-Purpose Cots exceed 300,000 spindle-years WITHOUT REBUFFING

300,000 spindle years without the need of the usual periodic buffing! That's the 2½ year record from just one 120,000 spindle plant using Dayco's ALL-PURPOSE SG-60 cots.

Add to this amazing wear record the great volume of high-quality yarn coming off the production line and you can see the outstanding efficiency of the versatile SG-60.

But with more than 70 different fibre combinations running now on production lines, a wide variety of top-quality cots must be used. Now, in plant after plant, Dayco has proved its laboratory tests on its full range of cots in actual production. Dayco offers a cot for every purpose. Each one is specifically designed for outstanding performance in a specific production situation with just the precise coefficient of friction. Dayco Cots deliver more yarn . . . better-quality yarn in mills everywhere, year in and year out.

This is just another example of Dayco service in the cot and apron field. Dayco's broad, continuous research and laboratory facilities have brought the most practical answers to the textile industry's spinning problems. Dayco's discoveries in precision compounding have resulted in closer precision tolerances than any other on the market.

Dayco research sought and came up with the answers on super-drafting at lower horse-power. Dayco's laboratory maintains quality controls on Dayco's own production line that have no match in its field.

costs come down

with the CARTER

"Supreme" traveler

yarn quality goes up

Yes . . . you pay more for Carter's "Supreme" plated traveler, but you get profit-performance that justifies the name. Problems of rust—nep control—excessive traveler changes and down time . . . are met and solved with the cost-cutting "Supreme" traveler. Pioneered by our own metallurgical laboratories . . . incorporating all of the traditional Carter craftsmanship and quality—the "Supreme" traveler makes a material contribution to the production of finer, stronger yarn—made and sold . . . *profitably!*

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Larry Bellerose	North Grosvenordale, Conn.
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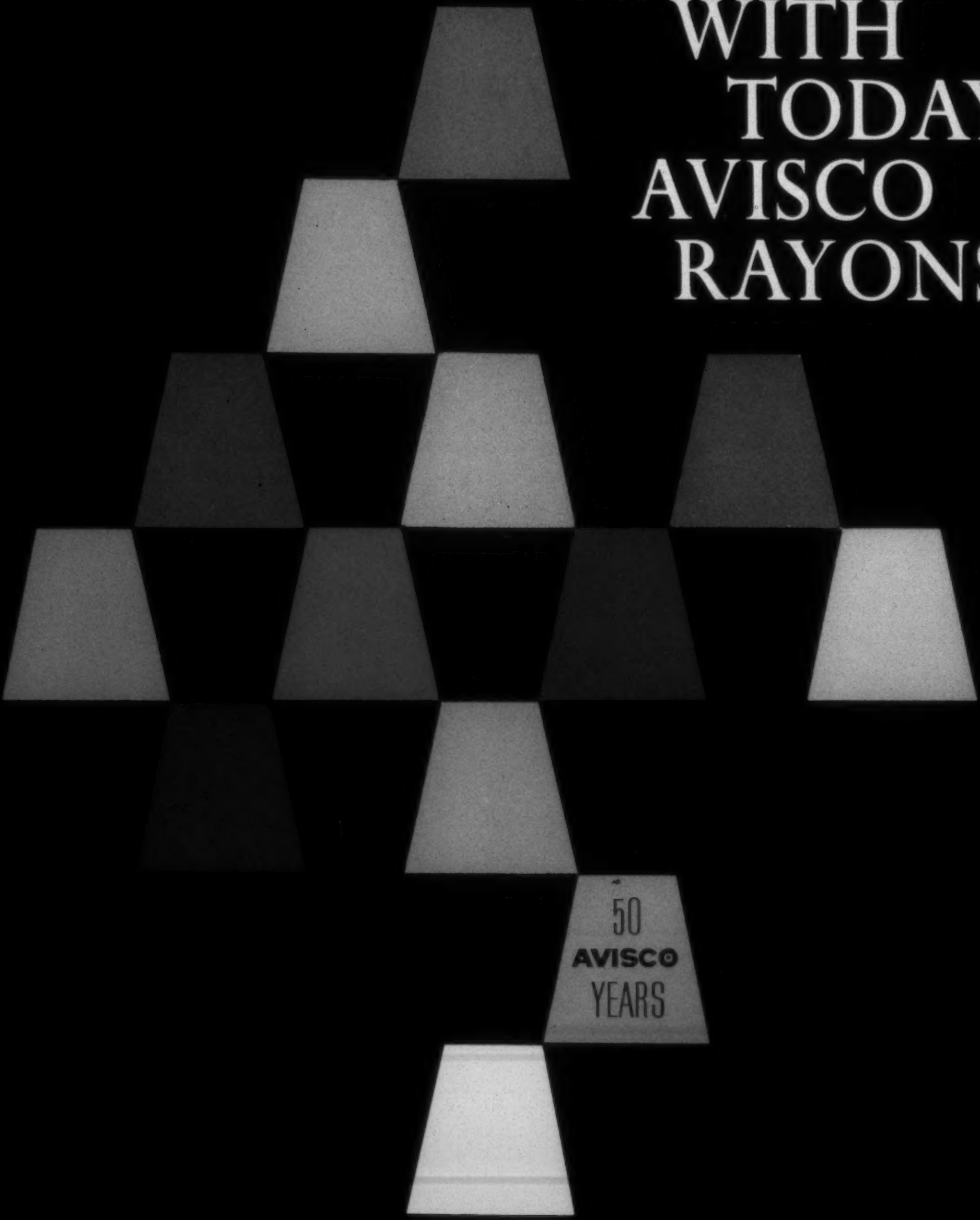
Carter
TRAVELER COMPANY
DIVISION OF A.B. CARTER, INC. MANUFACTURERS OF THE
BOYCE WEAVERS KNOTTER GASTONIA, NORTH CAROLINA

FIFTY OF PROGRESS WITH TODAY'S AVISCO RAYONS!



TEXTILE EXCITEMENT 1910 CREATED BY AMERICAN VISCOSE COMPANY

AVISCO

We have lots of experience in creating consumer excitement. Way back in 1910 when the first "artificial silk" fabrics (known to you as rayons) appeared in stores, they created a sensation. They were made of fibers produced by the American Viscose Company in the first successful synthetic fiber plant established in this country. A plant that was the forerunner of the whole synthetic fiber industry in the United States.

Early rayons had that silky look, were easy to dye and found ready acceptance in the millinery, lingerie and hosiery trades.

TEXTILE EXCITEMENT 1960 CREATED BY AMERICAN VISCOSE CORPORATION

▲

Used alone or in blends, today's Avisco rayons make possible exciting new fabrics featured in all types of apparel. Avisco rayons give fashions the hand, color, texture and performance that means volume sales.

Creators of decorator fabrics, carpeting, bedspreads have woven magic around the home with today's Avisco rayon fibers. Soft and subtle or bold and dramatic, Avisco rayons achieve perfect results. The Avisco Integrity Tag on home furnishings fabrics symbolizes performance tested fabric quality. ▶

With its 50 years of leadership in the synthetic fiber industry, American Viscose Corporation has set the pace in creating versatile, vital new rayon fibers whose application in the apparel and home furnishings fields are growing daily. New rayon fibers are constantly being developed and perfected in our own extensive research laboratories.

EVERYONE LOOKS TO TODAY'S AVISCO RAYONS FOR NEW IDEAS!

AVISCO®

The new American Viscose rayons are "can do" fibers. American Viscose research and fabric development have created special rayons to meet the end use requirements of a multitude of textile products. Apparel, home furnishings, industrial fabrics look better, perform more efficiently when they feature the new Avisco rayon fibers. Used alone or in blends, Avisco rayons put the *sell* in fabrics.

THIS IS THE AVISCO FAMILY OF MODIFIED RAYON FIBERS:

AVRON® (XL)	The new high-strength rayon staple fiber. Its strength makes possible the spinning of a much finer yarn. Especially popular in home furnishings field; widely used in all types of apparel.
AVRIL® (Fiber 40)	The stable rayon staple fiber that can be pre-shrunk and processed on cotton equipment. Fast absorbing, it blends beautifully with cotton and synthetics.
AVLIN® (RD 100)	A brand new multicellular rayon staple fiber that has unique characteristics contributing new firmness and bulk to fabrics.
COLORSPUN*	Solution-dyed rayon staple fiber and filament yarns for fabrics that are exceptionally washable and colorfast. Colorspun fibers and yarns have many applications for both apparel and decorator fabrics.
AVICRON®	A crimped rayon filament extensively used for tufting and weaving. Extremely resistant to lint pick-up. Leading manufacturers of bedspreads, bath mats, rugs are consistent users of Avicron.
SUPER L®	Special long-wearing smooth staple rayon created for use in carpeting. Very soil resistant, frequently blended with natural and synthetic fibers.

* T.M. American Viscose Corporation

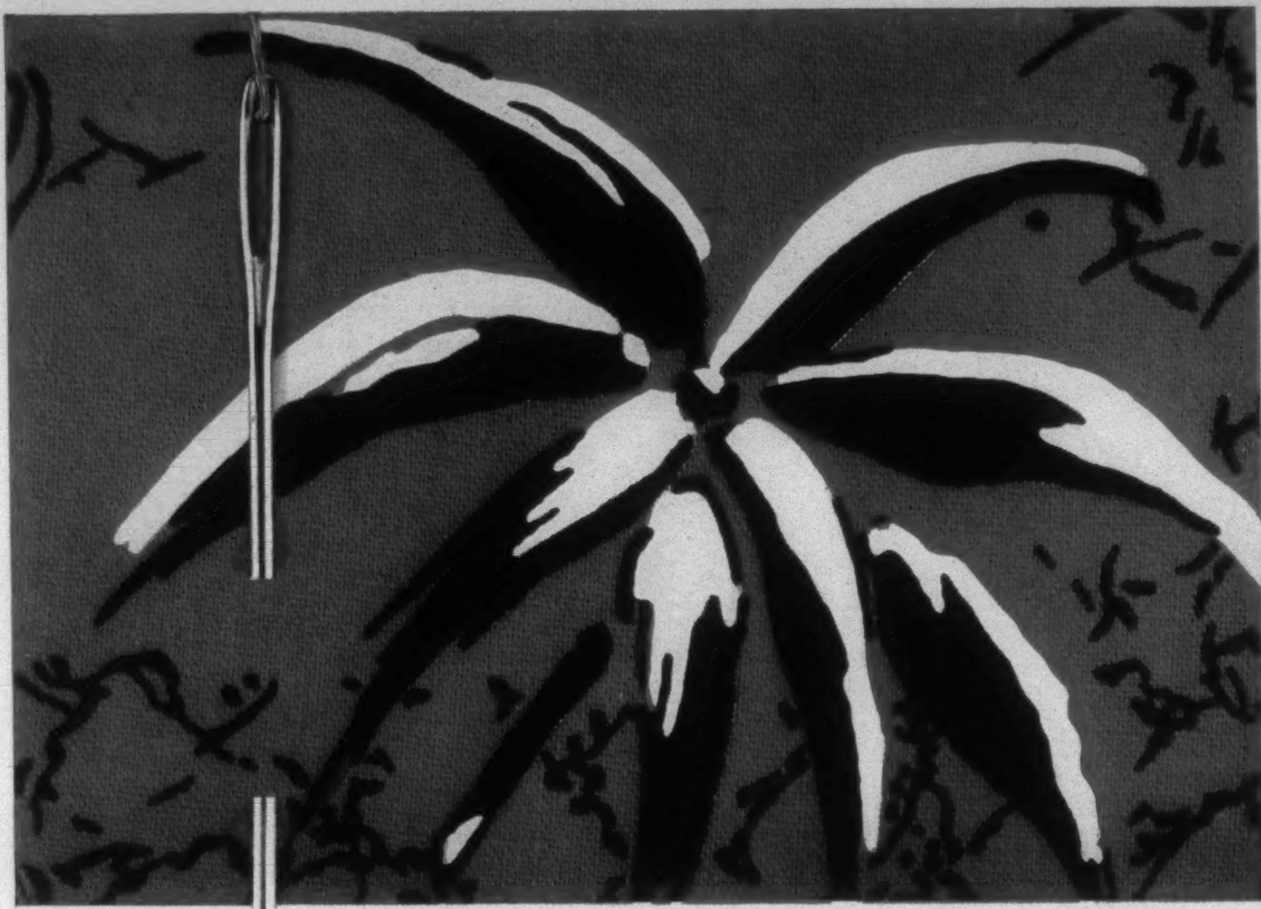
AMERICAN VISCOSE CORPORATION

Philadelphia 3, Pennsylvania • New York 1, New York

Makers of rayon filament and staple fiber, Tyrex tire yarn, cellophane, acetate yarns, cellulose bands & casings, plastics

Associated Companies (50% Owned): Chemstrand Corp. • Ketchikan Pulp Co. • AviSun Corp.

LITHO IN U.S.A.



with
Naphthols
Vats
Sulfurs
Pigments

BLANDOFEN®

NONIONIC POLYMER EMULSIONS

give better finishes with increased fastness to wet and dry crocking

BLANDOFEN AC and **SL** in combination offer textile finishers a series of outstandingly effective anticrock agents for colored cottons and rayons, either alone or in blends with today's popular synthetic fibers. Together, these Blandofen products are particularly valuable for fabrics colored with naphthols or pigments.

BLANDOFEN combination finishes also add softness and a full appealing hand to textiles. No other softener, wax, or lubricant need be used with the Blandofen emulsions on either dyed or printed fabrics.

Although Blandofen AC contributes greatly to the prevention of crocking, Blandofen SL is necessary to provide the required plasticizing effect. Both agents are compatible with textile brighteners.

BLANDOFEN SL, also by itself, is an excellent textile softener. It is nonyellowing and is used to eliminate needle cutting, increase tear strength and abrasion resistance, improve the draping qualities of fabrics.

BLANDOFEN polymer emulsions are available in carloads, truckloads, or single drums. BLANDOFEN SL is also supplied in bulk. Write or call any Antara office for Blandofen samples, information, and technical assistance.

gaf
gdc ANTARA

From Research to Reality

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SALES DIVISIONS OF GENERAL ANILINE & FILM CORPORATION
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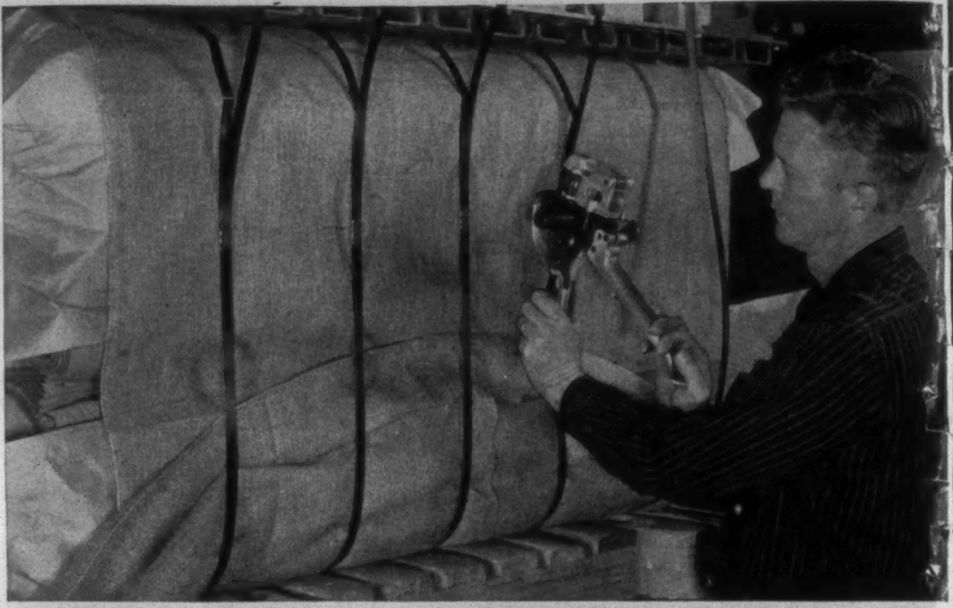
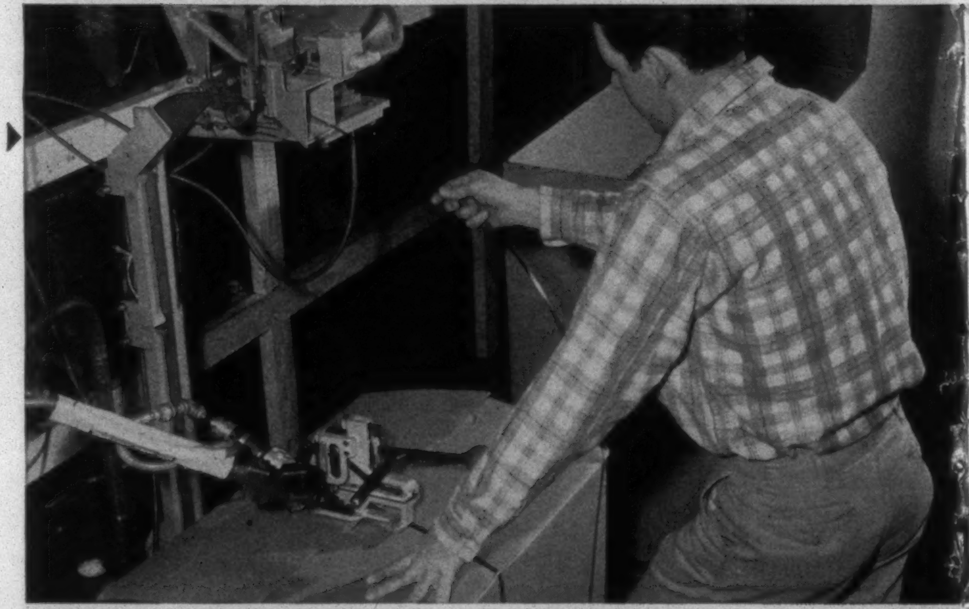
SALES OFFICES: New York • Providence • Philadelphia • Charlotte • Chattanooga • Chicago
Portland, Ore. • San Francisco • Los Angeles. IN CANADA: Chemical Developments of Canada Ltd., Montreal

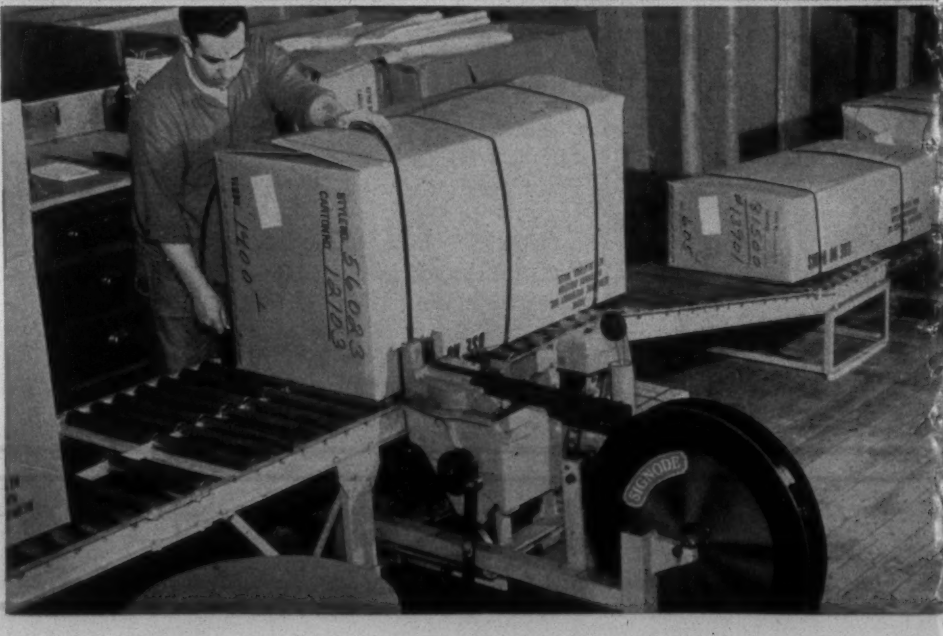
Signode Model SFC manually-operated seal feed strapping tool tensions, seals and scores strap at the seal for easy break-off with fast, smooth, one-arm movement. Weighs only 6½ lbs., and its almost perfect balance makes it easy to handle with one hand. In the illustration, the operator is using the SFC in the Signode strap-saver baling method, which reduces strap use by as much as 17%.

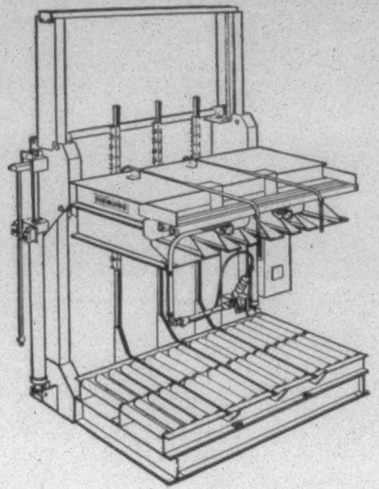


Signode Power Strap Feeder is a motorized, foot-pedal operated device for putting strap around big packages. It eliminates the need for a helper, enables one man to strap as many as 500 large cartons per day. Can be used with the Model AP strapping tool shown, or any of Signode's hand, air, or electric powered combination strapping tools.



Signode Power Strapping Machine automatically feeds, tensions, seals and severs the strap in seconds. One operator readily applies strapping more than fast enough for the highest production rates. May be used on cartons, bundles, boxes or bales of varying sizes, giving uniform pre-set tension at the touch of a foot pedal. Completely automatic strapping stations also available.





New Signode Compression Strapping Machine designed specifically for the textile industry makes tight, compact packages or bales that cost less to handle, store, ship and receive. It has a compression capacity of 2,000 pounds and is equipped to feed strap automatically around package or bale. Tensioning and sealing is done with any Signode hand-operated air or electric power combination strapping tool or machine. Resulting denser bales save as much as 7% of valuable space in storage and shipment.

Save Time, Money, Manpower ...the Signode Way

Signode can probably help you find ways to make substantial savings in time, money and manpower. Here are some of the reasons why we think so:

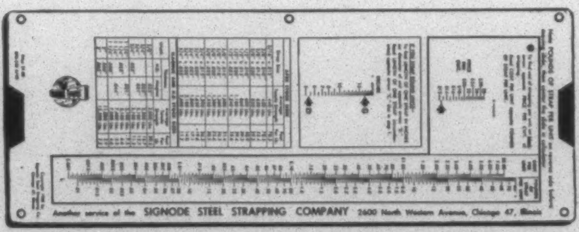
Our line of strapping equipment permits selection of the tool or machine that is right for the job. It includes hand tools, power tools, feeders, presses, and completely automatic machines. Our continuing program of product improvement is backed by 45 years of specialized experience.

The Signode man near you is experienced in the application of this equipment to textile strapping and packaging operations. He also can offer, if needed, the services of Signode's field engineering staff and extensive testing laboratories at no cost to you.

If you have not reviewed your strapping operations quite recently, it will almost certainly pay you to do so, with Signode. Potential savings go beyond the strapping operation....include savings for you in handling, storing, and shipping, plus savings for your customer.

The coupon below is for your convenience.

FREE! NEW Signode Steel Strapping Calculator helps you buy steel strapping at least cost according to your needs, and shows new strength figures for Signode steel strapping.



- ☐ Combination Strapping Tools
- ☐ Power Combination Strapping Tools and Feeders
- ☐ Air Power Tensioners & Sealers
- ☐ Compression Strapping Machines
- ☐ Power Strapping Machines
- ☐ Adjusta-Pak 3-way telescoping container
- ☐ We'd like to talk to the Signode man

SIGNODE

First in steel strapping

SIGNODE STEEL STRAPPING CO.

2665 N. Western Avenue, Chicago 47, Illinois

Please send new Signode Steel Strapping Calculator and additional information on the items checked.

NAME______________________________________

FIRM______________________________________

ADDRESS___________________________________

____

Offices Coast to Coast • In Canada: Canadian Steel Strapping Co., Ltd., Montreal, Toronto

Dary RING TRAVELERS . . .
SINCE 1898

THE DARY RING TRAVELER CO.
TAUNTON, MASSACHUSETTS
LINDSEY I. PHILLIPS, Treasurer, Taunton, Mass.

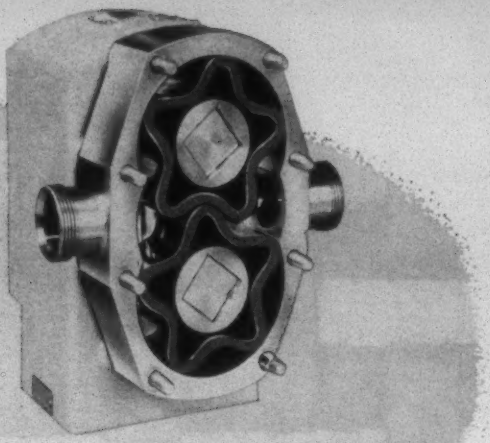
Consult your friendly Dary Representative:

JOHN H. O'NEIL	**Box 720, Atlanta, Ga.**
JAMES H. CARVER	**Box 22, Rutherfordton, N. C.**
CRAWFORD "JACK" RHYMER	**Box 2261, Greenville, S. C.**

How many of these can cut costs in your mill?

WRITE FOR DETAILS

BULLETIN
A1-750

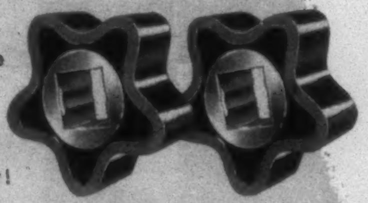


Stainless ROTARY SLASHER PUMPS

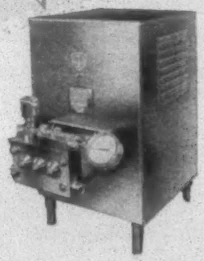
RESILIENT ROTORS absorb wear of abrasive sizing—

Compact design saves space—

Prices save you money!



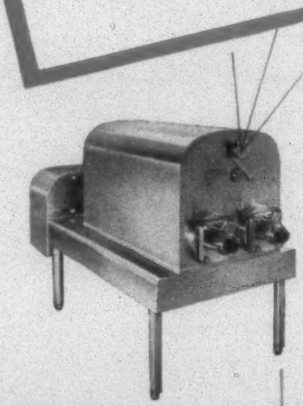
Interaction of rotor lobes forms continuous, flexible seal between inlet and discharge, moves liquid without change in velocity. Metering of a constant volume of sizing is assured. All parts are replaceable in the field! Exclusive CP design of case and special seals prevent leakage. Available for specialized applications with vented cover—built-in by-pass or relief valve. These pumps are dimensionally replaceable for most pumps now used for sizing in textile mills. Complete stocks at branches listed below. Five sizes —up to 200 gal./min. at 200 P.S.I.



Stainless STARCH HOMOGENIZERS

Uniform homogenization at relatively low pressure and low power consumption!

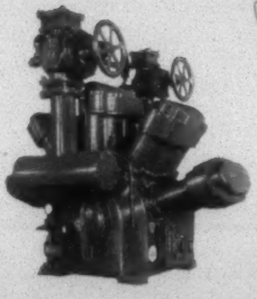
One adjustment provides precise control of homogenization. Homogenizer valve is engineered to fit your particular requirements. All stainless steel exterior. Three and 5-cylinder models. Capacities 50 to 7,000 gph., depending upon model and starch characteristics.



Swept Surface STARCH COOKERS

No starch film build-up—continuous uniform cooking

Displacer-mixer constantly sweeps starch away from exchanger wall, assuring rapid heat transfer. Cylinders are hard chrome plated nickel or stainless steel. Stainless steel exterior. One to four cylinders, in capacities engineered to your specific needs.

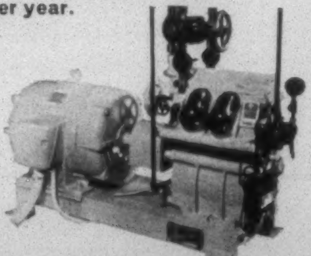


TYPE "K"

REFRIGERATION

Maximum refrigeration, in minimum space, at low cost—year after year.

Simplifies your installation and planning. A complete range of CP Model "K" multi-cylinder compressors, 2-stage factory-assembled compressor-booster systems and 2, 4 or 6 cylinder "VS" sectional compact compressors.



COMPACT "VS"

THE *Creamery Package* MFG. COMPANY
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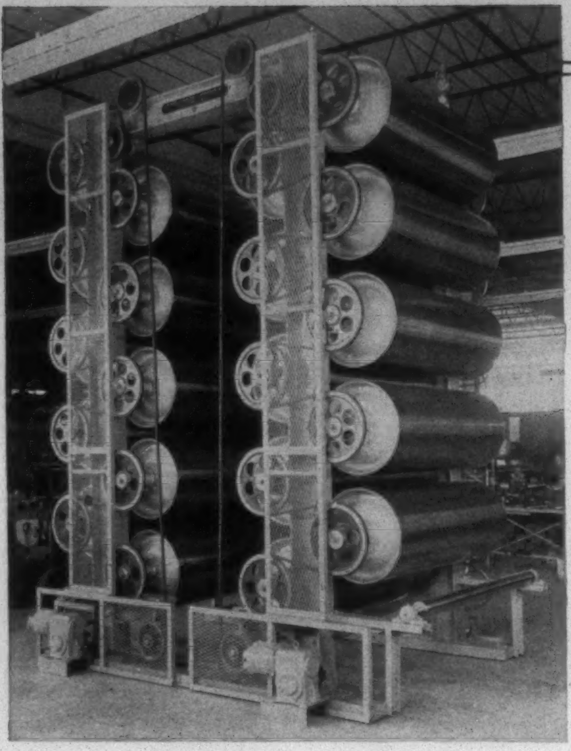
ATLANTA 8, 471 GLEN IRIS DRIVE N.E. • CHARLOTTE 3, 215 FOSTER ST.

Southern Representative:
Wm. J. Moore
Poinsett Hotel Building
Greenville, S.C.



All parts are completely erected and tested in our shop before dismantling for shipment.

Cocker

Cloth Ranges

Low Initial Investment

Low Maintenance

Streamlined production in Cocker's new and modern plant has resulted in attractive prices for this fine equipment.

Cocker engineering has produced a more rugged machine to give longer trouble-free service, and has added features which improve operation.

Journals have been greatly improved, with 60,000 lbs. tensile strength instead of the usual 35,000. Seals and bearings are assembled in a single self-aligning unit to provide a leakproof seal.

Drums can be either 23" or 30" with faces up to 144", and are ASME Coded for 69 PSI. Accurately matched cylinders assure a total runout not to exceed .045.

V-Belt Drive with automatic belt tighteners require practically no maintenance and run smoothly and quietly.

Drums can be heated from one or both sides, using either rigid or flexible tubing for steam and condensate return.

Base columns and cross members are of rigid construction to permit accurate alignment of all members.

Cocker will engineer these fine cloth drying ranges to fit your exact requirements. Write today for free consultation.

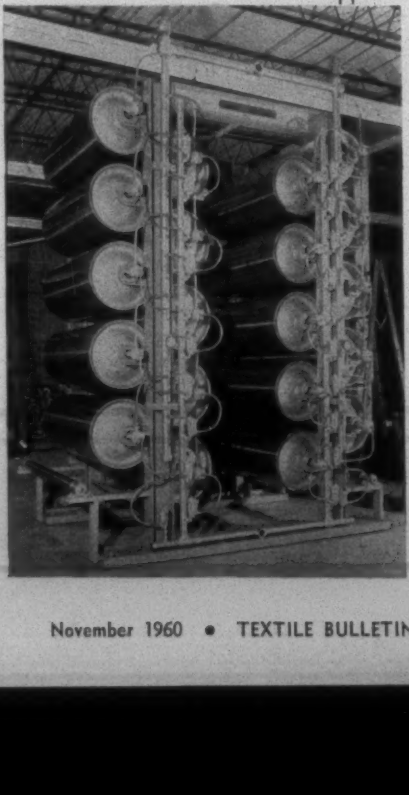
THE LEADER AROUND THE WORLD

COCKER

Plant and Offices at Ranlo, N. C. (Mailing address, Gastonia, N. C.)

Machine and Foundry Co., Gastonia, N. C.

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT



The P&F Technical Service Representative can help!

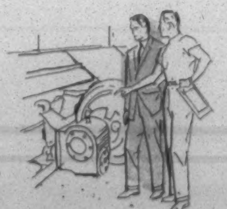
So many things can happen to interfere with smooth weaving operations! A machine can go out of adjustment, stuck ends can break the yarn, uneven tensile strength can cause warp stops, hard size problems can plague you. And while the results of the trouble may be obvious, the cause and cure are sometimes harder to discover.

That's where Penick & Ford comes in! We maintain one of the largest staffs of trained textile experts in the business. If you have used our Crown Thin Boiling Starch, Douglas Starch or Dextrine, Clearsol or Penford Gun, you know that P & F means quality. It also stands for service.

The Technical Service Representative who responds to your call is a skilled sleuth when it comes to detecting textile troubles. After studying operations in hundreds of mills around the country, he knows the trouble spots and shortcuts, and he has more answers than you can shake a spindle at. In his kit are all the tools needed for scientific detection — thermometer, viscosimeter, pyrometer, refractometer, etc. And he is well armed with 500 Penick & Ford starches and derivatives.

Even if you have no specific problem, our technician may be able to make a cost-saving or quality-improving suggestion to advance your weaving efficiency. So why not take advantage of his experience? A letter or telephone call to our Atlanta Office will bring him promptly. The address is 1531 Marietta Blvd., Atlanta, Ga. Tel.: SYcamore 4-9521.

The P & F Technical Service Representative tests yarns and textiles for abrasion resistance, etc...



Checks out your warp sizing, finishing and glazing solutions in actual production conditions...

Studies machines and methods... brings his wide experience to bear on your whole weaving operation.

Penick & Ford

PENICK & FORD, LTD.
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OXYTROL Low B.O.D. STARCH

Water disposal problems are solved more economically when you use Staley's latest contribution to the textile industry—OXYTROL Low B.O.D. Starch. For this economical warp size has some 70% less B.O.D. (biochemical oxygen demand) than regular starches. Recommended for sizing a variety of yarns—mill trial runs show OXYTROL gives nearly twice the effective weaving protection of ordinary starch sizes.

Examine the many advantages of convenient, easy-to-use OXYTROL. Save up to 20¢ a pound on your low B.O.D. materials costs. See your Staley representative for further information, or write:

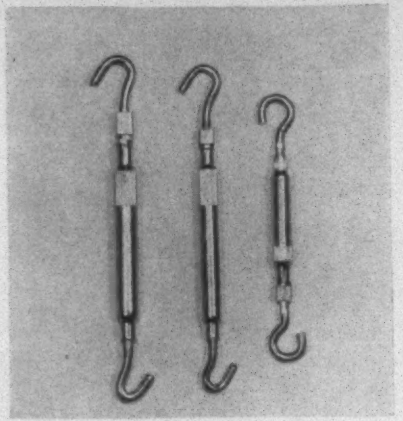
A. E. STALEY MFG. CO.
Decatur, Illinois

ATLANTA • BOSTON • CHICAGO • CLEVELAND • KANSAS CITY • NEW YORK • PHILADELPHIA • SAN FRANCISCO • ST. LOUIS

For The Textile Industry's Use

– NEW MACHINERY, EQUIPMENT AND SUPPLIES –

Harness Adjuster



A new patented heavy-duty harness adjuster is being offered by the Louis P. Batson Co., Greenville, S. C.

Offered in three sizes, the ShuR-TufF rust-proof turnbuckle adjuster is designed to provide quick adjustment and accurate settings, and to eliminate slipping.

Sizes available are standard with 1 or 2″ adjustment, and heavy-duty with 2″ adjustment only. Each is available with open eye, closed eye or hooks in various combinations. The new adjusters may be specified with or without leather or fiber straps. Special innertube construction prevents loosening from vibration, as the ends are always held parallel.

(Request Item No. K-1)

Filament Yarn Size

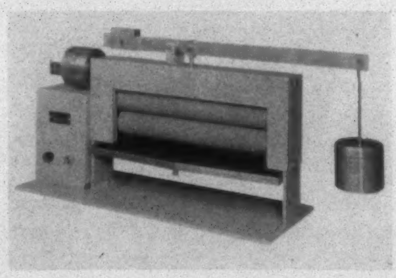
A new warp size for synthetic filament yarns, recently introduced by Morningstar-Paisley Inc., New York City, is said to offer lower cost and improved specific adhesion to cellulose acetate, triacetate and polyester fibers. Called Synthosize, the new size is based on a resin copolymer. The combination of high solids content and excellent adhesion are said to aid in obtaining extremely high weaving efficiency.

Synthosize can be readily removed by usual scouring methods in a mildly alkaline solution, the company reports. It is said to cost less per dry pound than other types of sizes: for example, about 20% less per dry pound than 100% acrylic products.

A typical size bath for acetate filament yarn would be 60 lbs. Synthosize in 100 gallons total volume. For low twist polyester yarns, a formula of 75 lbs. in 100 gallons is used. Synthosize is supplied as a concentrated liquid. In the size bath, it is diluted to approximately 6 to 8% solids.

(Request Item No. K-2)

Wringer And Padder



Atlas Electric Devices Co., Chicago, Ill., announces a new Model LW-1 wringer unit designed to meet the precise requirements of laboratory testing.

This new wringer is equipped with 2⅛″ diameter by 12″ long neoprene rubber rolls having a durometer hardness of 75±5 speed so that the specimens pass through the rolls at a rate of 1.0±0.1 inches per second. Deadweight loading, variable from 5 to 100 lbs., is provided by a balance arm and removable weights.

Accessory equipment is also available which permits its use as a small controlled laboratory padding unit.

(Request Item No. K-3)

Air Wash Compound

A new surface active compound designed to improve the operating efficiency of air wash systems in textile mills has been developed by Dearborn Chemical Co., Chicago, Ill.

Air Wash No. 1 is designed to remove sticky deposits which already are in place in operating air wash systems and to prevent the formation of new deposits in clean systems.

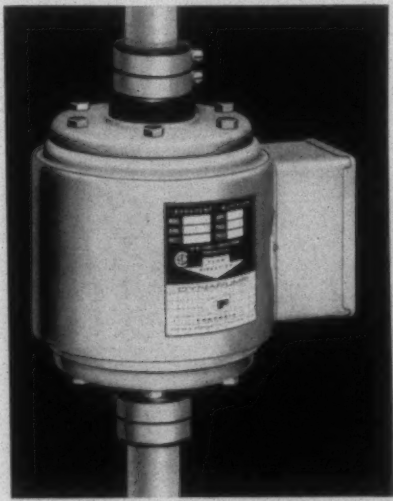
This cleaning action results primarily from the surface activity of the new product which facilitates wetting of suspended particles by reducing the surface tension of wash water, according to the Dearborn Co.

The compound is soluble in water and is compatible with standard corrosion and scale inhibitors and biocides normally present in chilled recirculating cooling water. In contrast with other surface active compounds on the market, Air Wash No. 1 does not tend to create foam or froth, the company reports.

The new compound is also water white and has a mild, spirit-like odor. It is ready for immediate use and is easily fed to the chilled water by slowly pouring the required amount to a point of rapid circulation. The product is available in 55-gallon steel drums or 5-gallon steel pails.

(Request Item No. K-4)

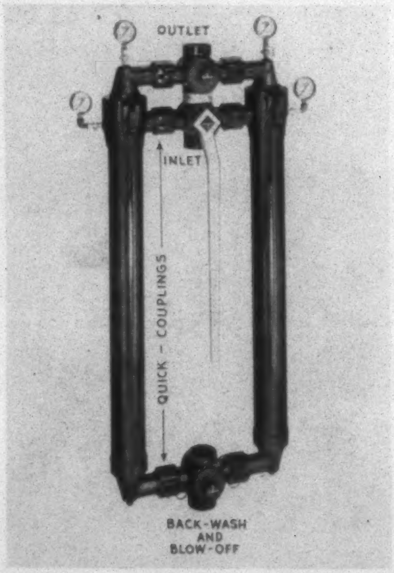
Water Circulator



An improved low-cost high head sealless water circulator combining motor and pump in a single leakproof unit has been introduced by Fostoria Corp., Huntingdon Valley, Pa. Known as Dynapump Model 600A, the new "canned" unit is equipped with rubber flanges for quiet operation and can be installed in any position. The unit, which measures 8 x 11″ and weighs 23 lbs., handles up to 190,000 b.t.u. an hour in systems with a 20° temperature drop. It circulates up to 23 g.p.m. and produces a head of 25′ at shutoff. Designed for closed water circulator systems free of foreign objects and materials, the Model 600A Dynapump has no stuffing box and requires no coupling or seal. The pumped fluid itself acts as bearing lubricant and motor coolant. No external lubrication is ever required, it is reported. Suitable for pressures to 30 p.s.i. and temperatures to 220° F., the Model 600A is available for operation on either 115 or 220 volts, single phase, 50 to 60 cycles. Automatic overload protection is provided. The sealless unit can be serviced with only a screwdriver, according to the company.

(Request Item No. K-5)

Fluid Filter Unit



Ronningen-Petter Co., Vicksburg, Mich., has developed a new line of Double Duo fluid filter units, with reducing streamlined smooth flow, 3-way inlet, outlet and backwash blowdown valves.

Each filter has inlet and outlet gauges to record pressure differential. Two filters are mounted together with reducing streamlined 3-way valves to make one Duo. Filters may operate together or alone, and may be backwashed and blown down on the run. All filters are quickcoupling. They can be removed, serviced and replaced in a matter of moments. All are sealed at both ends so no dirty unfiltered particles can bypass.

Two filters are used for clarification of any fluid containing foreign particles in suspension, such as dirty water, viscous liquids, chemicals or oils, fluids with pipe scale or iron particles.

Rated 5 to 150 g.p.m., the units have 10 to 700 mesh (30 microns) and handle pressures to 200 p.s.i. and temperatures to 200° F. They are available in bronze, steel, 316 stainless steel, monel metal or aluminum. The units are priced from $300 to $1,300.

(Request Item No. K-6)

Carpet Backing

A new system designed to provide low-cost transparent backsizing of velvet, wilton and contract type carpets has recently been developed by Morningstar-Paisley Inc., New York City. The transparency feature is designed to improve the appearance of the carpet back. Cost of the new Morningstar-Paisley system runs as low as 2½ cents per square yard. The material has excellent aging characteristics, with no yellowing after prolonged exposure in a Fadometer test (over 150 hours at 150° F.).

The new system provides for a variety of different back properties (variations in hand, pile locking qualities, etc.) by varying the proportion of ingredients. The backing system is supplied in a variety of viscosities to meet the needs of a particular application method. It will not skip, even on carpet backs that have variations in levelness, the company reports.

The material does not present problems commonly encountered in backsizing operations such as lumping, gritting or pick-off, the firm reports. It can be pigmented white with titanium dioxide, without affecting the other characteristics of the unpigmented material. It is said to be usable on all backsizing equipment.

(Request Item No. K-7)

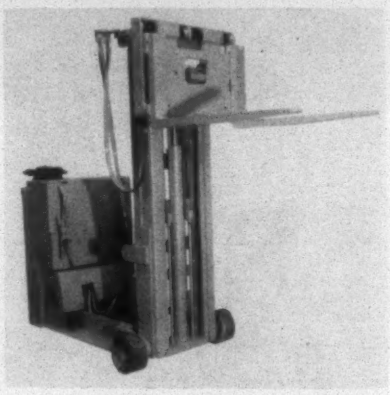
Metal Detector

An electronic metal detector which locates all types of ferrous and nonferrous metals and alloys is being marketed by Morehouse Machine Co., York, Pa.

The unit, called the Metablock Metal Monitor, consists of a search coil and a control unit. The search coil is usually installed around a non-metallic conveyor belt or weigh feeder so that any metallic object moving through its field will produce a signal. This signal can be used to trigger an alarm, stop the conveyor or divert the material containing the metal. The search coil is sealed in polyvinyl-chloride plastic pipe for protection against moisture, dust and weather.

(Request Item No. K-8)

Materials Handling Unit

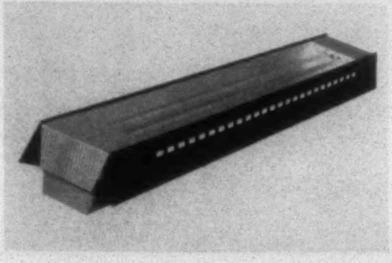


A counterbalanced JackStacker equipped with a side shifter enabling the operator to move a load 4″ to either side of center without moving the truck is being offered by Lewis-Shepard Products Inc., Watertown, Mass.

The side shifter increases speed of handling by eliminating time normally consumed in repositioning of the truck in congested areas and tight spots where maneuvering is difficult. This attachment is made even more versatile by the ability to interchange rams, gooseneck cranes and other mechanical accessories with standard forks.

(Request Item No. K-9)

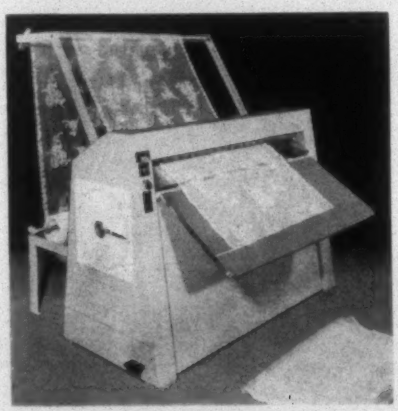
Infrared Comfort Heaters



A new line of electric infrared comfort heaters for creating comfort conditions in hard-to-heat indoor or outdoor areas has been introduced by Fostoria Corp., Huntingdon Valley, Pa. Since the new infrared heaters transfer radiant energy directly from source to object without costly heating of the intervening air, they can be used for outdoor heating; for indoor areas where large air movements make conventional space heating costly or ineffective; for areas where only occasional heating is required; or for localized heating. The units are also said to be practical for supplemental heating since they can be easily and economically installed without disturbing walls or floors and without expensive modification of the existing heating plant. Designed for overhead mounting, they can be installed as easily and quickly as lighting fixtures. The new Fostoria comfort heaters, known as Series CH, are available in various models for use with linear quartz tubes manufactured by Fostoria or with standard high temperature T-3 linear quartz lamps which provide extremely high operating efficiencies converting as much as 86% of electrical energy into radiant output. Other advantages cited for the new units are: low first cost; low operating and maintenance costs; instant response; silent, safe, clean, heat without fumes, dirt, odors, or open flames; patented front loaded sockets for easy installation of elements; and attractive modern design.

(Request Item No. K-10)

Cutting Machine



A new machine designed primarily for curtains and drapery manufacturers called the Tilt-Table Cutting Machine has been developed by the Sjostrom Machine Co., Boca Raton, Fla.

This machine, which is 5′ in each direction, is useful for any type of material which must be cut on the cut line and eliminates the walking up and down which a cutter makes when cutting on a conventional table.

Material is fed through nip rolls and the pointer is set to the length desired (20 to 130″). The operator presses the start button and the feed rolls feed the exact length past the operator and down the table which is tilted downward at a 30° angle when the rolls are feeding.

When the feed rolls come to a stop, 2 seconds for an 84″ length, the table comes horizontal and the operator makes the cut on the cut line of the material. If the operator takes 2 seconds to make the cut which is customary, a production of 15 cuts per minute is feasible.

Accurate lengths to less than 1/8″ in 120″ are claimed by the manufacturer. The measuring box consists of a clutch plate with micro switch sensitive to 1/1000″. As there is a 10 to 1 ratio between the feed rolls and the measuring box, the theoretical error would be 10/1000″. Actually the lengths are plus or minus 1/16″ due to vagaries in different types of textiles.

(Request Item No. K-11)

Wash-And-Wear Finish For Rayon Fabrics

A permanent, non-resin, wash-and-wear finish for rayon and rayon/cotton blend fabrics has been developed by Courtaulds Inc., New York City. The finish, called Prestwick, has so far been applied commercially only to spun rayons, but extensive trials which have been carried out suggest it will be equally effective on cotton, continuous filament rayon and the newer man-made cellulosics, as well as blends of cellulosic fibers with thermoplastic fibers.

Prestwick is said to have outstanding dimensional stability on both rayon and cotton fabrics. Courtaulds reports that it is possible to compressively shrink fabrics treated with Prestwick to a residual shrinkage of less than 1% in both length and width as tested by the Government Standard Cotton Wash-and-Wear Test Procedure. A rayon gabardine is currently being marketed under the Sanforized mark. Prestwick, on both piece goods and in test garments, has withstood 50 complete cycles of automatic wash-and-wear launderings, under typical home laundry conditions. With soundly constructed fabrics, the above mentioned properties are obtained together with good tensile strength, tear strength and abrasion resistance.

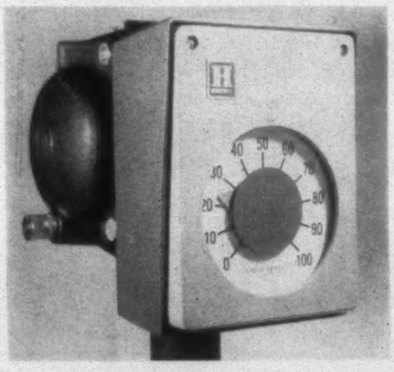
Prestwick fabrics are said to have good crease recovery, both wet and dry, and excellent wash-and-wear ratings can be obtained. The process permanently modifies the cellulose fibers to which it is applied. Consequently, crease recovery, wash-and-wear properties and dimensional stability are said to be maintained for the life of the garment regardless of the number of times it is washed, and regardless of washing methods whether at home or in commercial laundries. The finish has no chlorine retention, and fabrics qualifying for the Prestwick mark can be sold as unconditionally washable, the company reports.

Courtaulds will license the process for use on both rayon and cotton, and permit the use of the trademark Prestwick on fabrics conforming to its quality standards. Such fabrics will be extensively advertised in the trade and supported by hangtags.

United Merchants & Manufacturers, the first licensee of Prestwick, has been in commercial production since the first of May and has now successfully processed over one million yards of spun rayon fabrics. Trials are now in progress with United Merchants and a number of other finishers on a wide range of rayon and cotton fabrics commonly used in apparel and home furnishings.

(Request Item No. K-12)

Pneumatic Flow Meter



A pneumatic transmitting bellows flow meter said to have unusual temperature stability has been introduced by Brown Instruments Division of Minneapolis-Honeywell Regulator Co., Philadelphia, Pa. The new unit is designed for accurately measuring flow or liquid level.

Utilizing modular construction, the transmitting units are available in both indicating and non-indicating models featuring a flapper-nozzle pneumatic circuit, a pilot valve with controlled bleed for stability, and a Ni-Span C re-balancing capsule.

Because of its zero thermo-elastic co-efficient, the re-balancing capsule reduces zero and span shifts to less than 0.5% per 50° F. ambient change.

Modular units, according to the company, simplify operation and maintenance. Each major component of the transmitter can be independently removed by sliding the concentric scale indicator free from the fluorescent-tipped pointer. Span, zero and linearity can be adjusted without disassembly.

The newly designed transmitter provides two-way overload protection while the flow meter itself can take full static pressure overload in either direction. Rotation of the concentric scale indicator, which is 5" in diameter with a calibrated length of 8.5", is on a 270° arc. The weatherproof case, 9" high by 7" wide by 4" deep, is die-cast aluminum with a cover of reinforced fiberglass.

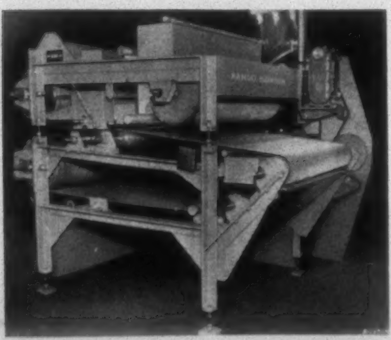
The bellows-type differential pressure meter is available in models for measuring liquid level in closed tanks under pressure or vacuum and for flow or open tank measurements.

Other specifications include: input air supply, 20 ± 1 p.s.i.; output air signal 3 to 15 p.s.i.; accuracy, input to transmission ± 0.5% F.S., input to indication ± 1% F.S.; ambient temperature limits —40° to +150° F.

Optionally available is an air set kit, consisting of a regulator and filter for mounting on the rear of the instrument case, which is recommended for use with individual transmitters located at a distance from the input air supply. A 2" dial gage mounts directly on the regulator and is calibrated either at 0-30 p.s.i. or 0-2.0 kg/sq. cm.

(Request Item No. K-13)

Nonwoven Saturator



A new type of saturator called the Rando-Bonder, designed for the manufacture of nonwovens, felts and specialty fabrics, has been jointly developed by Curlator Corp., East Rochester, N. Y., and Celanese Fibers Co., a division of Celanese Corp. of America, New York City.

According to Gordon Harvey, sales manager of Curlator, and Dr. Reiner Stoll, director of Celanese applications and product development at Charlotte, N. C., the new saturator makes possible the rapid, uniform saturation of nonwoven webs, without drafting or distortion. It is said to provide flexibility and ease of operation not encountered in existing equipment. The versatility of the machine is demonstrated in its processing of many materials when uniform penetration and controlled pickup are required without distorting the base web. Structures of natural, synthetic, mineral, metal, reclaimed tire cord, shoddy, plastic scrap, felt, woven and nonwoven materials may be successfully processed.

The new machine was built by Curlator and incorporates design principles that originated with Celanese. It has been tested at the Celanese laboratories and was shipped early this year to a customer who will produce a high quality bonded structure of Celanese acetate fibers.

Outstanding features cited for the Rando-Bonder are: (1) horizontal treatment of fibers minimizing distortion of uniform fiber lay; (2) open construction permitting easy accessibility, observation and control of chemical application; (3) a self contained unit, fully functional—can be completely dismantled by two men without tools in 20 minutes; (4) all vital parts coming in contact with chemicals are fabricated from corrosion-resistant stainless steel; and (5) operates in conjunction with Curlator's compact chemical feed system.

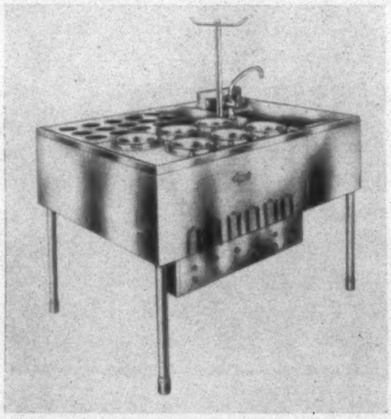
Web saturation is said to be quickly and efficiently handled on the unit. The fabric structure to be chemically treated is continuously fed onto the bottom screen conveyor. The top screen, maintaining the same surface speed, engages and holds the web in position. The material encased between the screen conveyors moves forward through a pre-treatment (wetting agent) zone and chemical treatment zone in horizontal position. After the chemicals are applied, the top screen is removed from the material which then travels through an equalizing zone prior to vacuum extraction. Preset controls determine the reduction of web pickup.

The chemically treated material then usually passes directly onto a standard conveyor drying unit, where the binder is set and the chemically treated material is stabilized. Both top and bottom conveyor screens are continuously washed which permits longer production runs with a minimum of chemical build-up on the conveyors. The conveyor screens are guided to avoid widthwise travel.

The top or head section may be adjusted to accommodate maximum or minimum thickness of web without undue pressure until the chemicals are applied. All unused binder materials are continuously removed from the Rando-Bonder and are returned to Curlator's compact chemical feed system by means of a stainless steel separator in the suction line.

(Request Item No. K-14)

New Dye Bath Assembly



A 3-compartment dye bath featuring separate dye bath, soap pot and sink compartment is being offered by Electric Hotpack Co., Philadelphia, Pa.

The dye bath section has a monel metal tank and is fitted with a stainless steel cover to hold 15 standard dye pots. The heaters deliver up to 215° F. The bath section can be preselected for "on" operation by a timing device, and a dual thermostat gives automatic thermal control and protection. The entire top assembly is of one piece stainless steel pitched to allow spillage to drain into the sink.

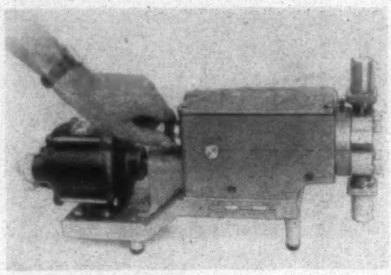
A thermostat maintains accurate temperature control to 1° F. A wattage selector switch provides temperature selection over full range. Indicator lights are standard.

Six stainless steel beakers are mounted in a cover in the soap pot section. The heater element for each beaker is protected from boil-over and short circuiting by water-tight neoprene gaskets between beaker and cover joint. Each beaker has an individual electrical control and a control lever for quick drainage. Temperatures are controlled up to 212° F. by a combination wattage selector switch and thermostat.

The sink is constructed of stainless steel for cleaning dye pots and disposing of dye waste. A convenient bar rack is mounted on the sink top to hold skeins before and after dyeing. Electrical characteristics of assembly are adaptable.

(Request Item No. K-15)

Chemical Metering



Pulsafeeder Microflo LS-5, a new pump, developed for accurate metering of chemicals in flow ranges up to 4240 cc per hour, has been introduced by the process equipment division of Lapp Insulator Co., LeRoy, N. Y. The LS-5 extends the range of Lapp's Microflo pumping and handles highly corrosive as well as non-corrosive liquids. It can be utilized as a sampler, a proportioner, a filling machine, a chemical feeder, a pump or as a means for fluid control by responding to instruments measuring process variables.

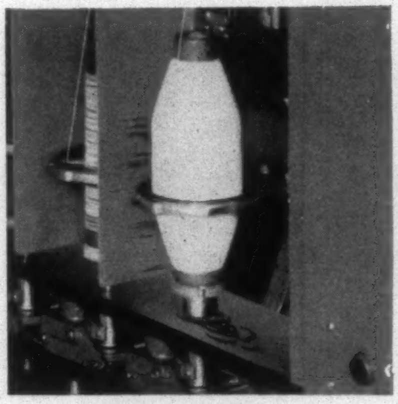
The new Pulsafeeder unit is a positive displacement type pump with a leak-proof design. A reciprocating piston within the pump forces oil to move a diaphragm forward and back. The back stroke takes the liquid chemical into the reagent head through suction check valves. The liquid is forced through the discharge valves on the forward stroke. The diaphragm isolates the chemical being pumped to an area within the reagent head plate and check valves — consequently no other parts need be of a chemically stable material. This piston does not incorporate a stuffing box since only oil is handled. Piston leakage, however slight, is automatically replaced by a vacuum compensator valve.

The pumping rate of the new Pulsafeeder is established by length of piston stroke which in turn is set by a micrometer dial externally mounted at the rear of the gear box. Adjustments can be made in increments of 1/1000 of maximum output while operating or idle. A lock is provided to insure against change in setting and displacement. Microflo LS-5 has maximum theoretical capacity of 1.1 g.p.h. at 500 p.s.i.g.; piston size is ½".

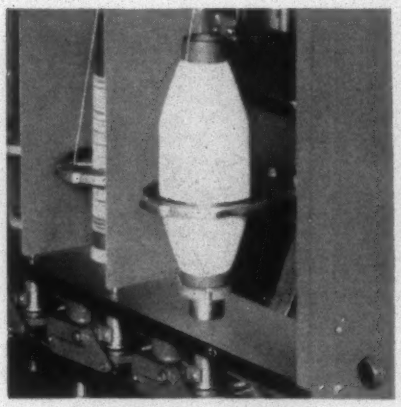
The standard liquid handling parts —reagent head, valve seats and valve housings—are of stainless steel No. 20. This alloy is said to offer superior resistance to all but the halogen acids. Ball check valves are Hastelloy C. Diaphragm is Kel-F and is reported impervious to the action of all corrosives. Reagent head assemblies of monel, other stainless steels, carbon steel, and Teflon plastic are available to meet specialized process conditions.

Microflo LS-5 is designed to be adaptable to all methods of semi-automatic and fully automatic pumping. Timers and program controllers attached to pump drive provide intermittent flow control. Continuous monitoring is available through use of electronic or

white NON-FLUID OIL
TRADE MARK REGISTERED



Ordinary Oils Drip and Spatter



White NON-FLUID OIL Stays on Rings

Why pay for liquid oils that drip and spatter on bobbins—or greases that cause yarn strain from traveler friction on rings? This results in broken yarn ends, blackened yarn and lower output.

White NON-FLUID OIL provides 100% lubrication and increases production by staying on rings and off goods in process.

Write for Bulletin T-16 and a free testing sample of NON-FLUID OIL and learn why it is the preferred ring lubricant in the textile industry.

NEW YORK & NEW JERSEY LUBRICANT CO.
292 MADISON AVE., NEW YORK 17, N. Y.
WORKS: NEWARK, N. J.
Sou. Dist. Mgr.: Fred W. Phillips, Greenville, S. C.

WAREHOUSES:
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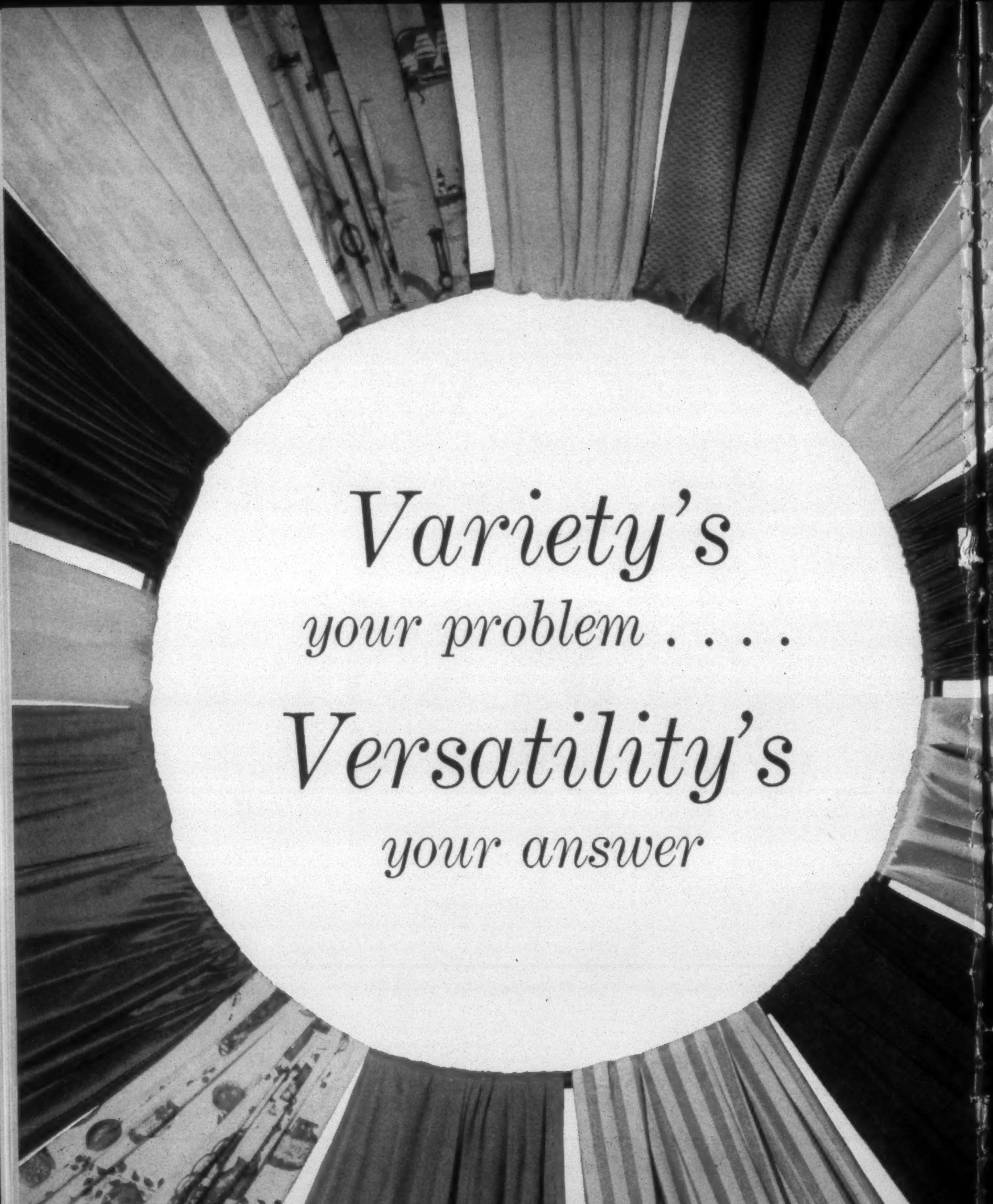
Greensboro, N. C. Greenville, S. C. Providence, R. I.
Springfield, Mass. Chicago, Ill. Detroit, Mich. St. Louis, Mo.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

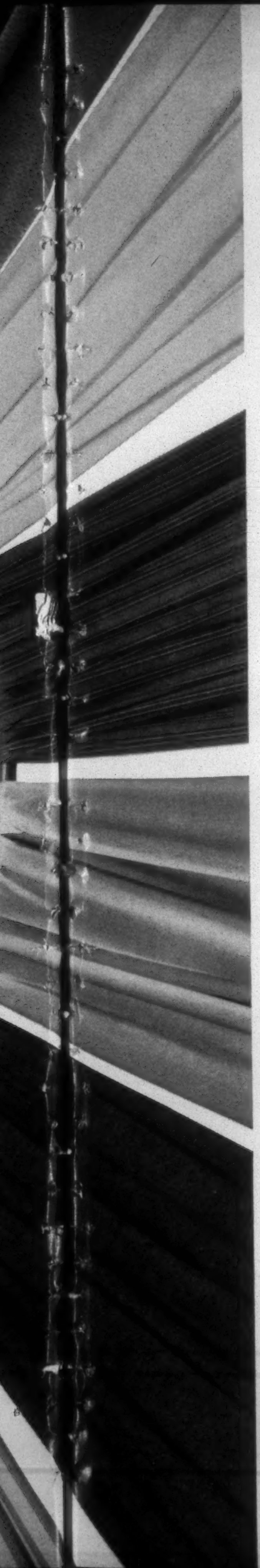


Variety's

your problem . . . .

Versatility's

your answer



Today's changing modes of fabric consumption demand a high degree of weave room versatility. UNIFIL® Loom Winders are bringing this advantage to many modern mills.

With UNIFIL Loom Winders the weave room becomes completely market oriented, because a wide variety of filling yarns may be used; natural and man made; spun filament and textured. The single shuttle weave room can switch filling yarn from one count to another, from one fabric to another as quickly as fashion dictates — *and at no extra cost.*

In addition to minimizing the caprice of style as a production factor, UNIFIL Loom Winders drastically reduce inventory and production planning, work scheduling and employee training. This is accomplished by the elimination of several operations.

UNIFIL's unmatched versatility meets today's needs and tomorrow's markets. It allows mills to wind from any filling supply *economically.* Quills are wound and shuttles loaded, empty quills stripped and returned for rewinding — *all automatically at the loom!*

The UNIFIL story is one of versatility and economy. It clearly indicates why leading textile mills consistently reorder UNIFIL Loom Winders. Call your nearest Leesona Sales Engineer — in Boston, Philadelphia, Charlotte, Atlanta or Los Angeles. Or write LEESONA CORPORATION, P. O. Box 1605, Providence 1, Rhode Island. Keep pace with your market with UNIFIL.

Some of the many modern mills
that are meeting today's challenges with
UNIFIL *Loom Winders*

ABNEY MILLS
AMEROTRON COMPANY
ARCO MILLS
BEAUNIT MILLS, INC.
BERKSHIRE HATHAWAY, INC.
BLANCHE COTTON MILLS
BOONTEX FABRICS
BURLINGTON INDUSTRIES, INC.
CANADIAN CELANESE, LTD.
CANNON MILLS CO.
CARTHAGE FABRICS CORP.
CONE MILLS CORP.
CONSOLIDATED TEXTILES
DOVER MILL group
DRAYTON MILLS
EXPOSITION COTTON MILLS CO.
GALLANT MFG. CO.
GLEN RAVEN SILK MILLS
GREENWOOD MILLS
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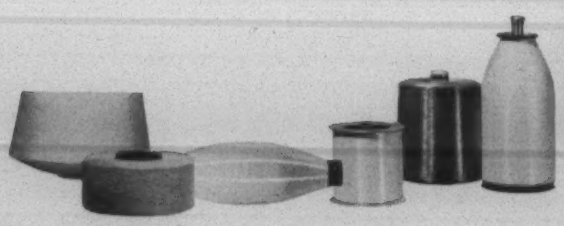
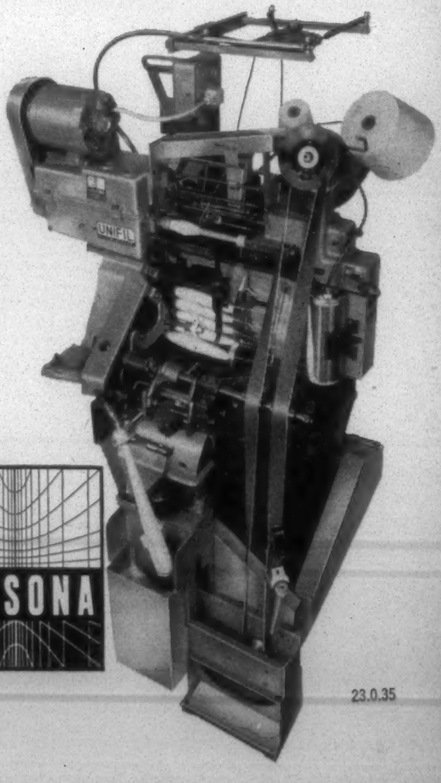
TALLASSEE MILLS
UNITED MERCHANTS & MANUFACTURERS, INC.
WAUMBEC MILLS, INC.
WOODSIDE MILLS





LEESONA

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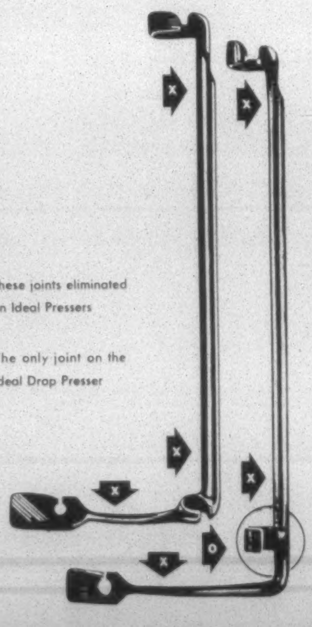
Ideal Pressers Now Stronger Last Longer

Ideal Conventional Pressers are now made in ONE piece and Ideal Drop Pressers in TWO, replacing the four and five piece pressers universally used before. This eliminates three comparatively weak (and expensive) points in each presser and assures infinitely longer service.

This is the latest of the many improvements in roving which Ideal has made. Let us send you samples and show you how Ideal Drop Pressers, adjustable spindle steps, self lubricating cardroom spindles, and other Ideal features enable you to get firmer and more uniform roving and add more roving to each bobbin.



X These joints eliminated on Ideal Pressers

O The only joint on the Ideal Drop Presser

Ideal Industries, Inc.
Bessemer City, N. C.

the Pulsafeeder's stroke length conpneumatic valve operators mounted on trol. Valve operators use precise positioners to insure maximum accuracy and high speed response. Flows are directly proportional to any standard signal.

Microflo LS-5 is also available as a Duplex pump with a single motor drive. The second unit, containing no gears, is coupled to the drive gear box through extended worm gear shaft and coupling. The pistons are normally located 180° out of phase to provide constant gear and motor loading. The Model LS-5 unit, both in manual and automatic types, can also be combined into multihead units with other Pulsafeeder models.

(Request Item No. K-16)

Concentrated Detergent

A concentrated, nonionic, synthetic, organic detergent for compounding cleaners has been introduced by Atlas Powder Co., Wilmington, Del. Called Renex 20, the new detergent does not produce excessive foam, making it especially adaptable to the scouring of textiles. It is designed to perform efficiently at a considerably lower concentration than conventional textile cleaning agents, thus effecting a substantial economy in operation.

Renex 20 is said to be efficient at much lower temperatures than are ordinarily used, creating the possibility for further savings. In many cases, Atlas reports, the lower temperatures will assist in preservation of fine colors.

Because the substance is nonionic, it is compatible with all the conventional sulfonated oils and soaps used in textile processing. It achieves best results when used in conjunction with sodium silicate, tetrasodium pyrophosphate, sodium tripolyphosphate or soda ash. The concentration of Renex 20 generally employed for scouring baths is from .05% to .1%.

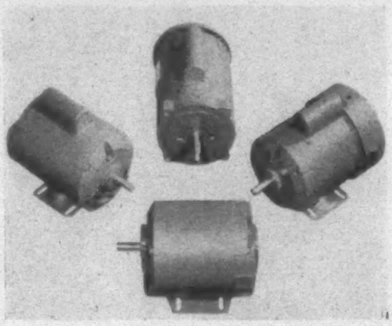
The detergent is said to be outstanding for its effectiveness in washing cotton. It is used in both high and low temperature scouring operations, replacing both high and low titer soaps. Being non-substantive, it rinses freely, leaving no film on the fabrics.

Renex 20 is also said to be excellent in desizing and scouring rayon when built with the usual mild alkalies. Its ability to wash at low temperatures makes it particularly effective for this type of work.

Atlas reports that the new detergent is also effective for the soaping-off of dyed fabrics and prints. For dyed fabrics the quantity recommended is 0.5% together with the usual builders. The recommended quantities for prints are in the range of 0.02% to 0.1%.

(Request Item No. K-17)

Fractional H.P. Motors



A new line of fractional horsepower a.c. motors has been introduced by the Master Electric Division of Reliance Electric & Engineering Co., Cleveland. Called Duty Master motors, the new line is now available in 1/20, 1/12, 1/8, 1/6, 1/4, 1/3, 1/2 and 3/4 h.p. ratings. Capacitor-start, split-phase, and polyphase units are made in frame sizes 48 to 56; repulsion-start induction-run models come in frame size 56. Open protected; totally-enclosed, fan-cooled; totally-enclosed, non-ventilated; and explosion-proof enclosures may be specified.

Either ball or sleeve bearings may be specified. Ball bearings are double-shielded and permanently lubricated to keep out contaminants, and increase bearing life. Sleeve bearings are packed with Permawick, fluid-fiber material that soaks up and combines with oil. It is said to hold oil up to three times longer than felt wicking for smoother, long-life performance. Duty Master sleeve bearing motors may be mounted either vertically or horizontally with moderate end thrusts.

The rotor is pressure-cast with high-purity, low-resistance virgin aluminum to form an integrated unit. Fan blades are cast right into the end of the rotor for internal cooling. Rotor slots are skewed on the shaft to provide smoother starting. The rotor core is machine turned and dynamically balanced so as to maintain a uniform air gap between it and the stator windings and to eliminate rotating vibration.

The stator windings feature mylar

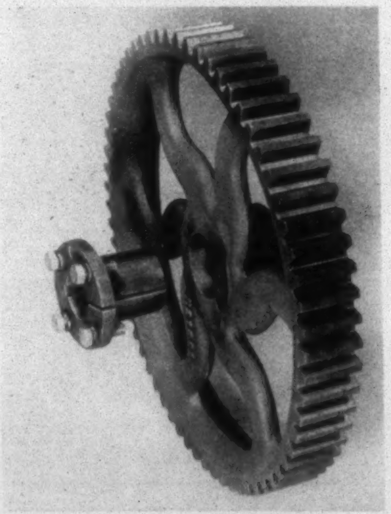
slot insulation with cuffed ends, designed to provide strength and insulation for the Formvar enamel magnet wire. The complete stator is varnish-impregnated to assure complete protection against aging, heat and deterioration from moisture and mild chemical action.

Leads are of neoprene, and are permanently marked with easy-to-read identification numbers for fast identification during installation. The terminal board is made of strong phenolic material, solidly supported in the end shield. Slip-on connectors of one size are provided for all leads; another size slip-on connector is provided for the incoming line to prevent confusion and speed the electrical connection of the motor.

Built-in thermal protectors operate in the event of excessive motor temperature or excessive current input. Mounting is provided for either manual or automatic reset types.

(Request Item No. K-18)

Loom Cam Shaft Gear



A new cam shaft gear which is designed to appreciably reduce downtime and to improve weave room production in the textile field is now available from Louis P. Batson Co., Greenville, S. C.

Manufactured by Southeastern Loom & Machine Works, the new gear incorporates a tapered bushing designed to permit the loom fixer to remove cam shaft gears without special equipment. The bushing is sufficiently elastic to be forced open without breaking.

Adaptable to any type loom, the new Batson gear is said to provide the easiest, most economical method for replacing cam shaft gears, and to save downtime as well as increase production in the weave room.

(Request Item No. K-19)

Data Processing

The International Business Machines Corp., White Plains, N. Y., has introduced a new data processing unit that reads. The new 1418 optical character reader does not depend on punched cards but reads data printed in widely-used type styles on paper or card documents at a rate of 480 characters per second. As many as 400 documents a minute may be read. The printed data is automatically translated into machine language for direct input to an IBM 1401 computer.

The 1418 reads numbers printed ten characters to the inch in a standard IBM type by 407, 408 or 409 accounting machines, the 1403 printer or an electric typewriter. It can also read numbers in the elongated 407 type style, which is seven characters to the inch. In addition, the 1418 can be equipped for mark reading—in which vertical markings represent specific information.

The optical character reader handles documents of various sizes and thicknesses. Forms can be anywhere from 5⅞ to 8¾″ wide by 2¾ to 3 2/3″ high. Thickness of the documents can vary from that of bond paper to IBM card stock.

As the documents feed into the 1418, they are separated and aligned, one document at a time. Each form then feeds individually onto a revolving drum, where it is held flat by a vacuum. As the drum revolves, the complete surface of the form passes under a lens system.

The standard IBM 1418 contains one optical reading station, which will read a single type style from any line on the document. Available optionally are either a second reading station or a mark-reading station. With the second reading station, two lines can be read in one pass of a document through the machine. These lines can be in the same or different type styles.

The 1418 employs an exclusive scanning method which recognizes a practical range of print quality. The characteristics by which each number is identified are contained within the solid-state circuitry of the reader. The light image of a character is converted into electrical impulses which are compared and matched with internal logic patterns. Numerical characters are in-

IDEAL FLYER RECONDITIONING SERVICE

. . . Assures Uniform Bobbin Density

Every flyer in each lot is matched exactly for
Shape or Form
Weight of Flyer
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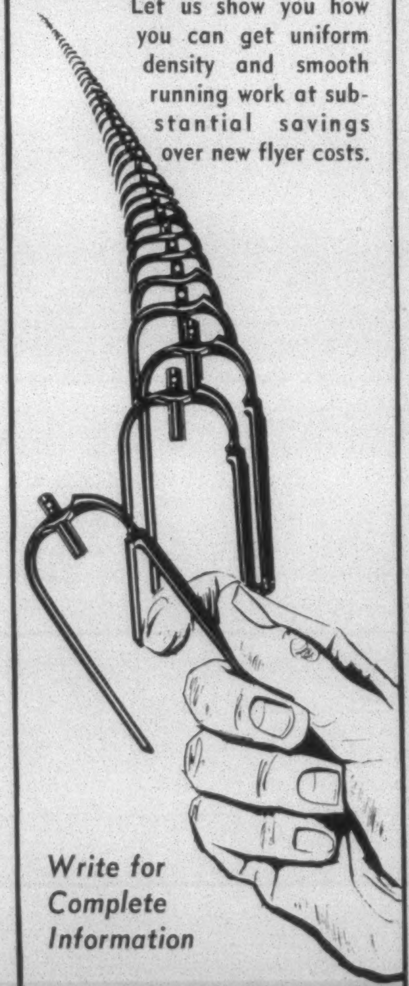
. . . and all worn parts are replaced or rebuilt to exact factory specifications. Pressers are fully interchangeable. Flyers can also be widened and lengthened to accommodate larger packages.

Let us show you how you can get uniform density and smooth running work at substantial savings over new flyer costs.



Write for Complete Information

Ideal Machine Shops, Inc.
Bessemer City, N. C.

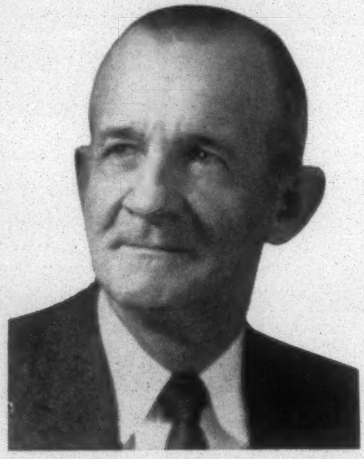
Continuous Service to Textile Mills Since 1925

America's Finest Lubricants
Since 1919

G-C

QUALITY LUBRICANTS

EXPERIENCE
PLUS
SERVICE
Means Better Lubrication
For Your Mill



Bill Dobbins, 35 years a mill man, for the past ten years has traveled North Carolina and lower Virginia for Georgia-Carolina Oil Company. A 1926 graduate of North Carolina State College School of Textiles, he was for 22 years superintendent of four different mills in the Carolinas. A Marine veteran of World War I, Mr. Dobbins joined at 16 and served with the Fifth Marines, Second Division, being discharged in 1919 as Field Top Sergeant. He resides in Greensboro and has three sons and eight grandchildren.

Bill Dobbins' experience is at your service for all your lubrication problems.

Address All Inquiries To —

GEORGIA-CAROLINA
OIL COMPANY
P. O. Box 101 Phone SH 2-1428
MACON, GEORGIA

dividually recognized in this way and transferred one at a time to the magnetic core storage of the 1401 system.

Once in storage, the data from the printed forms can be processed and the results produced as punched cards, magnetic tape, or printed reports by the 1401. The forms from which the data were read are fed by the 1418 into its appropriate sorter pockets.

While the 1418 is reading, the 1401 can perform independent functions, such as a magnetic tape to printer operations. The magnetic tapes prepared on the 1418-equipped 1401 can also be used for input to larger IBM data processing systems.

The 1418 reader can be used with any Model C, D or E 1401 magnetic tape data processing system. It is available in two models—Model 1 with three sorter pockets and Model 2 with 13 sorter pockets. When not in use with the 1401, the 1418 Model 2 can be used for independent optical sorting of printed forms and cards.

The Model 1 of the 1418 rents for $2,600 a month and sells for $120,300. The monthly rental for the Model 2 is $2,900, with a purchase price of $133,800. A 1418 adapter feature for the 1401 rents for $100 a month and sells for $3,750. An additional read station for the 1418 rents for $125 a month and sells for $5,450. A mark-reading station rents for $125 and sells for $5,950.

Initial deliveries of the 1418 are scheduled to begin in the first quarter of 1962. It can be installed in the plant or on a 1401 in the user's office.

(Request Item No. K-20)

Spray Cleaning

The Compressor Corp. of America, Greenville, S. C., has introduced what it says is the most important development achieved in the field of spray cleaning guns. The new Mistral B spray gun is a small lightweight unit designed to remove grease, oil, tar, resin and drip spots without leaving a ring on the material.

The unit completely atomizes a special cleaning fluid, reaching 120 lbs. of pressure instantly. It pumps no air, only atomized fluid. It is said to reduce seconds up to 25%.

Although the spray gun was just recently introduced in this country it has been available for some months in Europe where 35,000 were put in operation in nine months time. Several hundred of the units went into operation in this country in six weeks, according to the company.

Mistral 200, the cleaning fluid designed for use in the spray gun, is a blend of non-toxic non-inflammable chlorinated extractions with several other organic substances to broaden cleaning properties, especially hard-to-remove stains.

The guns are available on a leasing arrangement only at $125 each per year.

(Request Item No. K-21)

Warp Size

A warp sizing starch which is said to feature two-thirds less biochemical oxygen demand (B.O.D.) than ordinary starch and to be nearly twice the effective weaving protection has been developed by the A. E. Staley Mfg. Co., Decatur, Ill.

Marketed under the brand name Oxytrol, the chemically modified starch shows some 70% less biochemical oxygen demand than regular starches in standard 5-day B.O.D. tests.

With the warp size B.O.D. thus drastically reduced, the possibility of stream pollution in disposal of millions of gallons of water used in the desizing process is brought under control, Staley reports.

In order to keep outflows below B.O.D. levels at which oxygen demand of the waste might draw from the water oxygen needed to support fish and plant life, the industry has had to resort to more expensive substitute sizes, holding ponds, treatment systems, high disposal dilution and other costly measures.

The new starch is also said to give greater weaving protection, pound for pound. In mill trial runs, cotton warp sizes with Oxytrol starch at 5 to 7% solids equalled performance of warp sizes in the 10 to 12% solids range made with ordinary starch sizes.

A granular, free-flowing, cold water swelling, chemically modified starch, Oxytrol can be used over a wide temperature range, from room temperature to boiling. It is mildly alkaline, and desizes easily, according to Staley.

Oxytrol starch is currently available in limited quantities from semi-commercial production at Staley's Decatur pilot plant, and will be put into full commercial production late this year, with completion of a new 6-story, 30,000-square-foot plant now being built at Decatur.

(Request Item No. K-22)

Static Measurement

A new static voltmeter made in Switzerland by Rothschild of Zurich measures static charges from 0 to 5000 volts under actual production conditions. The device, sold in the U. S. by Fabrionics Corp., Huntington, N. Y., uses a roller electrode to make precise measurements of specific charges on individual threads and strips as well as field measurements.

Fabrionics points out that static electricity has long been a serious problem to synthetics producers and fabricators because the extreme inherent moisture of these materials gives them a very high electrical resistance and makes it difficult for static charges to be dissipated to the ground. As a result these fabrics are often difficult to handle, cause discomfort to the wearer, attract dirt, and even cause a fire hazard by generating sparks.

Anti-static preparations can cut down the disadvantages of synthetics but they must be carefully controlled and their effects accurately measured if they are to be useful. The Rothschild Static Voltmeter permits simultaneous measurements and recordings of charges over 8 ranges: 1, 5, 10, 50, 100, 500, 1,000 and 5,000 volts. This broad sensitivity makes the static voltmeter equally useful in the laboratory and on the production line.

A probe electrode permits measurements of the potential directly on the surface of the fabric. The density of the charge at various points can be measured in this way, and the effectiveness of the anti-static preparation checked. The small voltage ranges permit measurements on individual threads and thereby allow precise tests of the effect of various concentrations of anti-static preparation.

Accurate measurement of specific static charges is complicated by the fact that each voltage is the sum of a number of individual voltages which are affected by losses through the material and the machinery as well as by atmospheric conditions. These changes may reach an equilibrium which can be mistaken for a standard value which would be a more useful measurement. This difficulty is said to be removed with the new device by a synchronous motor that discharges the static voltage to ground every five seconds. Since the voltage is alternately measured at its peak and then brought to zero potential, the slope of the charge can be accurately determined independently of the equilibrium voltage.

Because anti-static preparations frequently increase the conductivity of the material, it is important to be able to measure the surface conductivity simultaneously with measurement of the static charge. The Rothschild Static Voltmeter permits such measurement of resistance up to 10^{15} ohms by a special measuring electrode and the resistance determined directly in ohms.

The increasing popularity of synthetics makes the problems of producing them economically increasingly more important. Since many of these problems are caused by static charges on the material, control of these charges is vital to the synthetics producer.

(Request Item No. K-23)

Print Gum Thickener

A series of low-cost print gum thickeners designed to provide high color yield and ease of wash-out has been announced by Morningstar-Paisley Inc., New York City. The thickener series, called Startex, consists of high viscosity products that can be used with rapidogens, vats, indigosols, and direct dyes. Although the products in solution do not form a true emulsion, they will yield the properties of an emuslion-type print thickener, the company reports. The products are applicable to all types of fabrics by standard screen and roller printing processes.

The Startex series, based on chemically treated carbohydrates, are supplied in dry form, readily soluble in water at room temperature. They are packed in 200 lb. fiber drums or 100 lb. paper bags.

(Request Item No. K-24)

MORE drying can "MILEAGE"

I.C. TEFLON* COATINGS STILL RUNNING AFTER FIVE YEARS!

Many mills report that TEFLON* coatings, applied by I. C., have been in continuous operation on drying cans for over *five years* and are still giving fully satisfactory service . . . positive proof that I. C. coatings last longer and cost less.

I. C.'s tough, residue resistant TEFLON* finishes are guaranteed to *give more* production "mileage" on your equipment. I. C. also specializes in the application of non-corrosive tank linings. Next time, specify INDUSTRIAL COATINGS.

*DuPont's TFE Fluorocarbon Resin

INDUSTRIAL COATINGS, INC.
PIONEER TEFLON APPLICATORS IN THE SOUTH ATLANTIC STATES
Box 1567 Greenville, S. C. TEL. CEdar 5-3573

For the Mill Bookshelf

Mechanical Power Transmission Equipment

Catalog 23103 describing and illustrating its complete line of mechanical power transmission equipment has been published T. B. Wood's Sons Co., Chambersburg, Pa. Products covered include variable speed drives of both motion and stationary control types; conventional V-belt and Ultra V-Belt drives; timing belt drives; flat belt pulleys; flexible and rigid couplings; adjustable motor bases; all bearing pillow blocks, flange and take-up units; solid and split sleeve pillow blocks; cotton-card drives; cotton cleaner drives; and bushings.

(Request Item No. K-25)

Switches For Industry

A new circular describing its adjustable pulse switch, center neutral limit switch and proximity switch is now available from Micro Switch, Freeport, Ill., a division of Minneapolis Honeywell Regulator Co. Illustrated are a wide variety of limit switches, explosion-proof switches, basic switches, pushbutton switches, mercury switches and toggle switches for use on machine tools and other industrial equipment.

(Request Item No. K-26)

Conversion Factors

A conversion table in wall chart form has been published by Precision Equipment Co., Chicago, Ill. This conversion chart includes common conversions such as inches to centimeters or watts to h.p. as well as many conversions that are difficult to locate in reference manuals. Some such examples are atmospheres to kgs./ sq. cm., cm./sec. to miles/hr., cu. ft. to liters, microns to meters, quintal to lbs., etc.

(Request Item No. K-27)

Radiant Comfort Heaters

Chromalox far-infrared electric radiant comfort heaters are the subject of a new 4-page bulletin now available from Edwin L. Wiegand Co., Pittsburgh, Pa.

The publication features illustrations, application information, features and specificatiton data. The copy points up the many advantages of localized electric radiant heating for maximum individual comfort in commercial and industrial establishments.

Also covered in Bulletin F701000-2 are line voltage thermostat controls and input controllers for use in connection with the radiant heaters.

(Request Item No. K-28)

Adjustable Speed Drives

General Electric, Schenectady, N. Y., has published a new 16-page, 2-color brochure describing its new 1/4 to 25 h.p. line of Polydyne mechanical adjustable speed drives. Bulletin GEA-6806 discusses principles of operation, configurations and features, and includes mounting positions, rating tables and description of available accessories. Also discussed in the publication are the benefits of mechanical adjustable speed drives, and how to select and specify Polydyne units.

(Request Item No. K-29)

Stacker Cranes

In its 12-page Bulletin No. SB-1, American MonoRail Co., Cleveland, Ohio, illustrates and describes various applications of its stacker cranes. A newly designed stacker with telescoping mast is also offered. Advantages, such as 50% increased storage capacity, 57% reduction in building costs and 60% savings in handling, are quoted.

(Request Item No. K-30)

Flexible Shaft Handbook

Copies of the fourth edition of its "Flexible Shaft Handbook" are now available from S. S. White Industrial Division, New York City.

A simplified approach to the selection of flexible shafting through standard, pre-engineered, or custom-designed flexible shafts is featured among the new data in the handbook. Descriptive material, charts, tables and drawings are provided to aid the designer in this selection.

Newly published data includes information on a new, simplified engaging system based on integral formed square drives, and the new, improved Series 7 (remote control) and Series 9 (power drive) flexible shafts.

Standard S. S. White flexible shafts are complete, ready-to-attach units available directly from stock. Pre-engineered flexible shafts are unit combinations of shaft, casing and fitting based on designs proven in service. These can be assembled quickly for early delivery. To meet specialized conditions, such as heavy volume requirements, S. S. White custom-designs flexible shafts.

In addition to this new information, the handbook describes in detail the advantages of flexible shafts, their function, successful applications, fundamental information on standard power drive and remote control shafts, uses of adapters and other accessories, and a section of tables and statistics.

(Request Item No. K-31)

Parallel Shaft Speed Reducers

"Parallel Shaft Speed Reducers" is a new 36-page book that describes the completely redesigned and expanded line of "balanced design" parallel shaft reducers available from Link-Belt Co., Chicago, Ill. Single, double and triple reduction units are available in 57 sizes with capacities up to 2,800 h.p. at high or low output speeds, and ratios up to 292:1.

Book 2719 describes the complete line and includes full information for selecting the correct drive for every application. Sixteen pages of rating tables contain thermal and mechanical horsepower ratings for each input and output speed. Load classes are shown for almost 250 driven machines. Overhung loads, extended shafts and outboard bearings, dimensions and actual ratios are included in additional tables.

(Request Item No. K-32)

Receiver Gages

New 8-page Catalog 520 describes the complete line of dial indicating receiver gages offered by U. S. Gauge, division of American Machine & Metals Inc., Sellersville, Pa. Receiver gages are special-purpose low pressure gages used to indicate values transmitted by pneumatic signal from a remote location, usually in the range of 3-15 p.s.i.

The catalog gives specifications for both the bourdon tube and diaphragm-actuated types. It also contains information on materials, dials, ranges and case styles and sizes.

(Request Item No. K-33)

Chlorine Compounds

A revised 44-page booklet that describes the use of organic chlorine compounds as solvents, extractants, fumigants, intermediates and special-purpose fluids, has been published by Union Carbide Chemicals Co., New York City.

The booklet contains comprehensive data on 13 organic chlorine compounds: ethylene dichloride, propylene dichloride, 1, 1, 2-trichlorethane, 1, 2, 3-trichlorpropane, dichlorethyl ether, dichlorisopropyl ether, triglycol dichloride, butyl chloride, 2-ethylhexyl chloride, isodecylchloride (mixed isomers), ethylene chlorhydrin, epichlorhydrin, and Chlorasol fumigant (mixture of ethylene dichloride and carbon tetrachloride). Included in the data are physical properties; cleaning formulation; toxicological properties; shipping, storage and handling information; test methods, and selected literature references.

Because of their high solvent power, chlorinated compounds are components of many textile formulations for scouring, spotting and wetting-out; and degreasing, and degumming compounds.

(Request Item No. K-34)

Zantrel Rayon

Hartford Fibres Co., New York City, subsidiary of Bigelow-Sanford Inc., has announced the publication of a complete, comprehensive technical brochure on Zantrel Polynosic rayon. The brochure details explicitly Zantrel's properties and performance qualities, and in specific trade terms for every level. The publication provides necessary information for weavers and converters, as well as dyers and finishers.

(Request Item No. K-35)

Manual Motor Starters

Bulletin GEA-6358C from General Electric, Schenectady, N. Y., describing its CR101 manual motor starter for fractional horsepower motors and CR1062 manual motor starter for integral horsepower motors up to 7½ h.p.

Divided into two sections, the 12-page publication includes photos with text explaining construction features of both units. Outline diagrams show dimensions. Heater selection tables and prices for both types are also included.

Photos depict two basic forms available for each type starter—toggle and key operated for the CR101 and toggle and pushbutton for the CR1062. The CR101 is available in single or double-pole forms, 115 to 230 volts, 60 to 25 cycles, and is rated 1 h.p. maximum. The CR1062 is designed for single phase application to 5 h.p.; polyphase to 7½ h.p.; 110 to 600 volts; and d.c. motors to 2 h.p., 115 to 230 volts.

(Request Item No. K-36)

Dust Control Equipment

A new composite product bulletin which describes its complete line of dust control equipment is available from American Air Filter Co., Louisville, Ky. Discussing the four main types of dust control products—dry centrifugals, wet collectors, fabric collectors and electrostatic precipitators, Bulletin No. 27 explains and illustrates 13 different products of the company, their capacities and their specific applications. Individual product bulletins for each piece of equipment described also are recommended for more detailed information.

(Request Item No. K-37)

Temperature And Pressure Controllers

New 6-page Catalog J-C describes the pneumatic pressure and temperature controllers available from OPW-Jordan Corp., Cincinnati, Ohio. Controlling pressures up to 10,000 p.s.i., and temperatures from —125° to 1,000° F., OPW-Jordan controllers are simple, self-contained and are designed to give precise response (1% middle half of scale).

Corrosion resistant materials are used throughout. Standard features include 1-100% proportional band, manual reset, differential gap action and on-off snap action. Remote set-point, control by-pass and automatic reset or rate are available as required. Temperature controllers are available in both indicating and recording models. Transmitters and recorders round out the line.

Catalog J-C describes features and accessories, and gives dimensions, specifications, materials of contruction and complete engineering information. The catalog also explains when to use a controller.

(Request Item No. K-38)

Reduced Voltage Starters

A new 8-page publication describing its full line of reduced-voltage starters has been released by General Electric, Schenectady, N. Y. The illustrated bulletin describes the reduced-voltage starter and its use and contains a selection and comparison table covering the various types of starters.

The publication also discusses the operation and application of General Electric's manual and magnetic autotransformer starters, part winding, primary resistor and the new wye delta starters. Typical wiring diagrams and a listing of available modification kits and enclosures are also included.

(Request Item No. K-39)

Textile Mill Lighting

The importance of improved lighting in textile mills is the subject of a 12-page, 2-color publication available from the large lamp department of the General Electric Co., Cleveland, Ohio.

Titled "Higher Profits Through Better Textile Lighting," the booklet points out that better lighting can result in such benefits as increased production, reduced costs, fewer accidents, fewer rejects, improved employee morale, better plant housekeeping and less maintenance.

The economics of relighting is analyzed, and case histories describing the relighting experience of several companies are presented.

(Request Item No. K-40)

Preparing Printing Colors

"Improved Methods of Preparing Textile Printing Colors" is the title of a 10-page technical bulletin recently published by Morehouse-Cowles Inc., manufacturer of mixing and grinding equipment.

Bulletin 32-1960 discusses the application of Morehouse mills and Cowles dissolvers in the preparation of colors by both the water-in-oil and oil-in-water methods and techniques used to produce best results. It will be sent free upon request on company letterhead to Morehouse-Cowles Inc., 1150 San Fernando Rd., Los Angeles, Calif.

Serving The Textile Industry

Leesona Sees $100 Million Potential For Cone Winder

A market potential of more than $100 million is seen for Leesona Corp.'s new Uniconer automatic cone winder, Robert Leeson, president, told the New York Society of Security Analysts recently.

Leeson based his estimate on an anticipated demand for 200,000 to 300,000 Uniconer spindles, 50% of which are expected to be sold abroad. The largest size Uniconer will be equipped with 96 spindles and its price is expected to be in the $50,000 to $60,000 range.

"The Uniconer's ability to wind yarns at operating efficiencies as high as 95%, together with its high speed of 1,200 y.p.m. will mean considerable cost reductions for textile manufacturers," Leeson said.

Firm orders will be taken very shortly, with initial shipments scheduled for late 1961, Leeson reported. Even before prices were set, he said, some 75 mills placed holding orders for one Uniconer each to establish a favorable position on future delivery schedules.

In discussing current operations, Leeson said that profits in the current six months will not equal those in the preceding six month due to heavier expenditures for research and development. He went on to say, however, that full 12 months 1960 earnings will be higher than the 1959 calendar year.

He said the company's new plant to replace present facilities is to be ready for occupancy December 1961.

American Enka Co. Cuts Wages, Releases Employees

American Enka Corp., Enka, N. C., has announced a general cut in the wages and salaried employees at all levels. In addition, the company has terminated the service of some 120 salaried employees. Both the Enka plant and corporate groups are affected. The reduction in salaries will range from 6 to 10% of annual earnings.

The reductions in salaries and employees are said to be necessitated by depressed business conditions. Sharpened competition in the field of tire yarn has forced the company to reduce prices of its Tyrex tire yarn three times in the past year. The firm has also suffered a reduction in the volume of shipments of tire yarn, textile rayon and rayon staple fiber.

Enka, the largest employer in western North Carolina, has some 4,150 employees and an annual payroll of $20 million. The company reports net income of $483,000 for the first 36 weeks of this year, ended September 11, as compared with $5.3 million for the corresponding period in 1959.

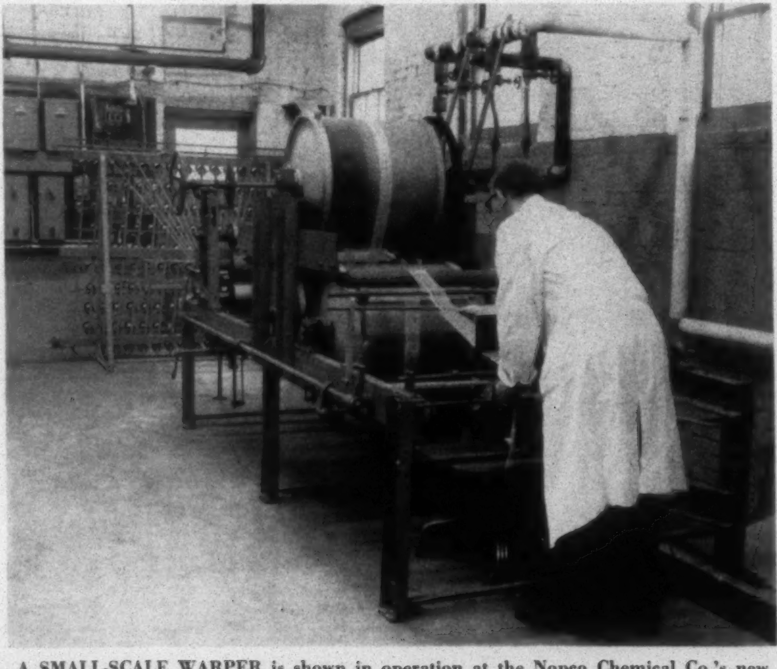
Net sales amounted to $66.2 million compared with $76.7 million in the first 36 weeks of 1959. Operations for the 12 weeks ended September 11 resulted in a loss of $200,000.

American Viscose To Sell Interest In Chemstrand

Monsanto Chemical Co., St. Louis, Mo., is negotiating with American Viscose Corp., Philadelphia, Pa., for the acquisition of American Viscose's entire interest in the Chemstrand Corp., which consists of 50% interest in both Chemstrand's stock and Chemstrand's subordinated notes. American Viscose's share of the subordinated notes is estimated to amount to $9.5 million at the time the plan is to be consummated.

Under the proposed plan, American Viscose would receive 3,540,000 shares of Monsanto common stock, which would be subject to special voting provisions so long as they are held by American Viscose.

Prior to the consummation of the plan, it is contemplated that Chemstrand will pay its usual annual $5 million dividend, one-half of which would accrue to American Viscose, and redeem $2.5 million of its $12 million subordinated notes now held by Amer-



A SMALL-SCALE WARPER is shown in operation at the Nopco Chemical Co.'s new laboratories for its chemicals division at Newark, N. J. The laboratories are equipped to duplicate many of the processes found within the industries served by the company. In the textile lab, Nopco will be able to subject its products to such basic tests as: determination of the co-efficient of friction between fiber-to-fiber and fiber-to-metal surfaces, size adhesion, and anti-static determination. Standard testing equipment is available to assist in the formation of detergents and products for the fabric finishing field. Pilot plant scale equipment enables laboratory personnel to more closely approximate the conditions of the industry for the testing of warp sizes and size additives.

"Actually the book isn't too good, but it's printed on Dillard paper."

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1926 "IF IT'S PAPER" 1960

ican Viscose. The plan would be subject to approval by stockholders of American Viscose and Monsanto.

If the proposed transaction is approved and effected, it is planned that Chemstrand will continue its activities as a separate entity. American Viscose has no present intention of disturbing or disposing of the Monsanto shares.

Chemstrand reports third-quarter consolidated sales of $49.8 million compared with $48.7 million for the third quarter last year. Sales for the nine months to September 30, totaled $152.8 million as compared with sales of $154.9 million for the same period in 1959.

Net earnings on a consolidated basis after all charges and taxes for the September quarter were $5.9 million, compared with $6.1 million for the third quarter of 1959. Net for the nine months to September 30 was $19.3 million as compared with $20.9 million for the same period last year.

L. H. Shingle Co. Adds Neoprene Line

The L. H. Shingle Co. of Camden, N. J., producer of industrial leather products, has added the line of moulded synthetic mechanical packing produced by Rockwell Mechanical Packing Co., Los Angeles, Calif. The new line consists of Neo-fab (Neoprene) fabric and Neoprene molded cup, U's, flanges V's and other shapes. Complete stock of all sizes and types are available from the Worcester plant of the Shingle Co. They will be sold by all the company's divisions, including Graton & Knight.

Tennessee Eastman Plans Kodel Production Facilities

The second phase in the multi-million dollar construction program of production facilities for Eastman's new polyester fiber, Kodel, has been started at the Tennessee Eastman Co. division of Eastman Kodak Co. Tennessee Eastman, located in Kingsport, Tenn., is the second largest manufacturing unit of Eastman Kodak Co. and is a major producer of chemicals, fibers and plastics.

The company's engineering division is drawing up construction and equipment plans for two new plants to manufacture terephthalic acid and dimethyl terephthalate to meet its Kodel manufacturing requirements for these two chemicals.

The new plants will be modern unenclosed chemical production units. The control rooms, warehouses and personnel quarters will be of brick and concrete. The projects are scheduled to be completed during the latter part of 1961.

Eastman officials also reported construction is in the final stage on the main Kodel plant, which will have a production capacity of approximately 20 million pounds annually. It is expected that the first units of the Kodel plant will be put in operation during the fourth quarter of his year. Construction was started in June 1959.

Hartford Fibres Opens Polynosic Rayon Plant

The first U. S. plant for the production of polynosic rayon fibers has been opened by Hartford Fibres Co., a division of Bigelow-Sanford Carpet Co., Thompsonville, Conn. Up to this time the fiber has been imported from Europe. Hartford's polynosic fiber is named Zantrel.

The new plant is used to incorporate the latest production techniques designed to provide quality control and uniformity of product.

Crompton & Knowles Corp. Absorbs Packaging Firm

Crompton & Knowles has announced the merger of the F. B. Redington Co. into its packaging machinery division.

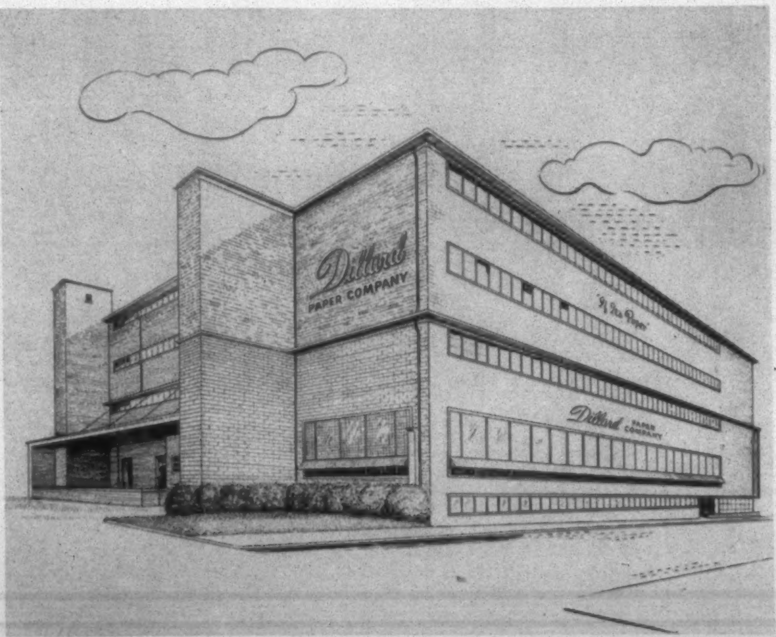
The transaction makes Crompton & Knowles one of the nation's six largest manufacturers of packaging machinery and marks the latest step in its major diversification program. The merger was completed through an exchange of stock and no cash was involved.

The merger of the Redington Co. into the C & K division will more than double its sales and manufacturing capacity.

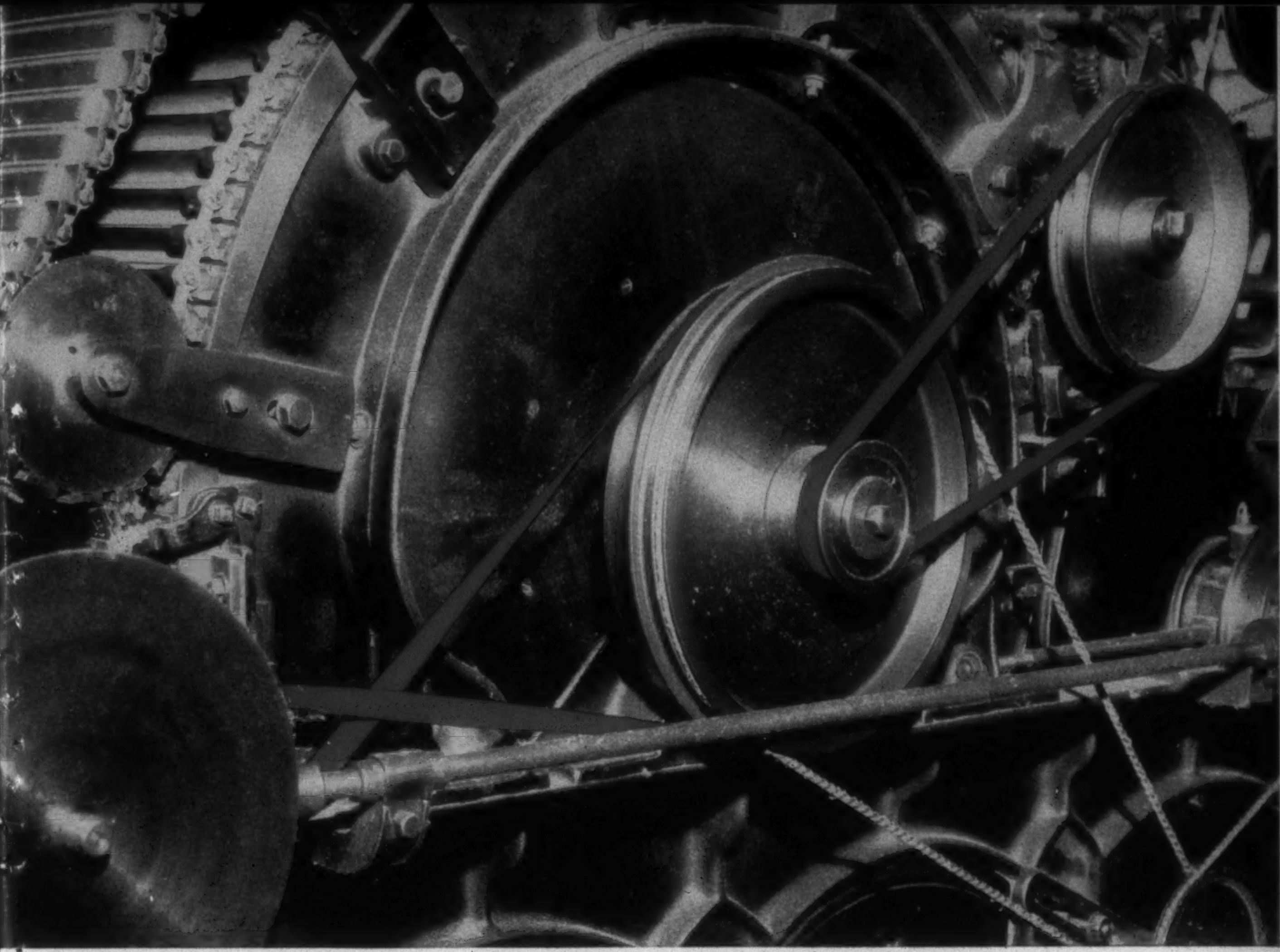
Redington, located in Bellwood, Ill., produces automatic machines for cartoning, wrapping and special packaging. The company employs approximately 200 people. It will continue operations at Bellwood.

American Cyanamid Issues Consumer Creslan Primer

American Cyanamid Co. has published a full-color 16-page booklet entitled "The Creslan Primer," a consumer's introduction to the acrylic fiber. The publication defines the performance of Creslan, outlines current end-uses, and answers consumer questions about the fiber's properties. Also in-



DILLARD PAPER CO. will soon occupy this new warehouse in Atlanta, Ga., purchased from the former Peaslee-Gaulbert Corp. The 187,500-square-foot building will be one of the largest paper warehouses in the country. Dillard now operates in 16 Southeastern cities handling paper and allied products for the textile industry.



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EXTREMULTUS eliminates start-up problems; keeps tension; gives smooth, constant speed; splices quickly, reduces bearing loads — and outlasts all other belting.

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☐ Gives smooth, constant speed
☐ Reduces bearing loads
☐ Splices quickly

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cluded is a fiber primer designed to serve as the consumer's guide to the official generic terms in natural and man-made fibers. The booklet also describes the company's quality control program for fabrics that carry the Creslan trademark.

Utex Holds Open House, Displays Equipment Line

Utex Inc., newly formed division of U. S. Textile Machine Co., Scranton, Pa., recently held open house at its facilities in Scranton to display its line of doublers and twisters. Highlighted at the open house were two prototype Utex large package doubler twisters.

One doubler twister embraces large package take-up with ring rail lifting motion said to be completely new in concept, capable of traversing a package up to 12 inches in length. It is equipped with 7-inch diameter rings capable of taking bobbins with flanges up to 6¼-inch in diameter. The bobbin holds up to six pounds of continuous filament synthetic yarns and up to ten pounds of continuous filament glass yarns. The feed roll assembly comprises a single wrap three-roll combination without any gearing. It is complete with an electrical stop motion with facilities to handle four ends in doubling from an overhead creel. The feed roll assembly is completely enclosed so as not to expose wiring or roll shafting.

This picture gives a close-up view of the drafting and twisting area of the new Utex large package doubler twister which offers a new yarn package up to 12" in length.

The simplified twist changing arrangement comprises a chain and sprocket system wherein one or two sprockets can be easily and quickly changed giving a range of twists in close increment from 1 to 15 turns.

The second Utex doubler twister features large package processing with particular emphasis on a long traverse package. The machine is designed to provide a traverse up to 14 inches in length. This is made possible by a new concept in rail lifter mechanism. The same mechanism also provides movement to the traversing centering eye guide bar. Another feature cited by Utex is the use of a large, easily accessible, variable speed unit with timing belts to provide a nine-to-one twist change ratio which can be dialed in to the desired twist. This can be done while the machine is in operation.

The unit also makes use of extra heavy spindles with a special heavy swing and a very simple mechanism for spindle alignment and positive easy spindle brake adjustment.

Also shown at the open house were a U. S. Acme Jumbo texturizer, a U. S. Acme high speed vertical spooler, the U. S. Acme Combo Twister and the U. S. Acme doubler-ring twister, including the fiber glass tube-drive twister. In addition to its own machines, Utex is the U. S. distributor for German-made Barmag winding and twisting equipment and for the Italian-made Scaglia spool stripper.

Examining the new prototype heavy duty ring twister shown at the recent open house of Utex Inc. are *(left to right)* Anthony Lema, Utex sales manager; A. W. Thomas Jr., president of U. S. Textile Machine Co.; William Russell, Utex Southern sales manager; and Seymour Robbins of the *Southern Textile News*.

New Division Formed By Commercial Chemical

Commercial Chemical Products Inc., Midland Park, N. J., has announced the formation of a new water softener division with headquarters in Midland Park. The division will design and manufacture a complete line of commercial and industrial water softeners, demineralizers and chemical feed systems.

Commercial Chemical Products, the parent company, has been serving industry since 1938 as general water consultant, manufacturer and distributor of chemicals for fuel and water treatment.

Moretex Chemical Markets Wet Processing Compounds

Moretex Chemical Products Inc. of Spartanburg, S. C. has acquired license from W. R. Grace & Co., New York City, to produce and market two hydrazinium compounds for use in textile wet processing.

Said to be the first hydraziniums to be commercially produced for textile application, they will be marketed under the trade names Aquazine-100 and Aquazine-88.

A cationic softening agent for all natural and synthetic fabrics, Aquazine-100, unlike conventional softeners, can be successfully applied to yarns in a package dyeing machines, the Grace Co. reports. It is described by the firm as the first truly effective cationic softener developed for use in napping, knitting and wash-and-wear finishing. Aquazine-100 is designed to soften without lowering tensile strength, is non-yellowing, will not retain chlorine, intensifies colors and can be applied with optical whiteners from the same bath.

Aquazine-88 is described as an excellent anti-static agent that may be used in the same processing systems as Aquazine-100. This compound enhances the anti-static properties of all synthetic fabrics, according to the company.

Bancroft Reports Increased Sales And Profits In 1960

An increase in consolidated sales and net income for the fiscal year ended June 30 was reported by Joseph Bancroft & Sons Co., Wilmington, Del.

Consolidated net sales and operating revenue amounted to $28,008,565, an increase of approximately 4% over the previous year. After provision for taxes, Bancroft's consolidated net income was $1,112,105, as compared with $1,055,636 for the preceding 12-month period. The company pointed out that all of its divisions contributed to its improved earnings and sound financial position.

Bancroft's capital expenditures for the fiscal year amounted to almost a million dollars, nearly half of which was specifically earmarked for research and development facilities and activities. The completion of a new building during the year means the company's Wilmington plant now has more than 50,000 square feet of floor space allocated to this phase of its operation.

The company emphasized the growth and importance of its licensing and research projects by noting that its technical staff has expanded from 3 to 170 in recent years, and that 351 licensees are now conducting various programs in 28 different countries.

Akers Motor Lines Opens New $1.8 Million Terminal

Akers Motor Lines of Gastonia, N. C., one of the principal truckers serving the textile industry, is now operating out of its new $1.8 million terminal in Charlotte.

Dedicated October 7 with the help of Gov. Luther Hodges of North Carolina, the terminal is one of the largest and most efficient in the country. Its 600-foot warehouse is designed to accommodate as many as 128 trailers at one time, and the bays are so arranged as to permit crossloading. In addition to providing enlarged and improved facilities for local customers, with more express runs, the Charlotte terminal will serve as the key break-bulk point terminal for the entire Akers system.

A vital part of the new facility is a central dispatch center which maintains constant supervision over each shipment and has complete control of all over-the-road operations throughout the Akers system. The control center maintains constant communication with all Akers' terminals by teletype and private phone.

Akers got its start in 1923 with one leased truck. Last year its more than 1,400 pieces of equipment traveled 32 million miles, hauled a half-million tons of freight and enjoyed a gross revenue in excess of $18 million.

One of the company's best customers is the textile industry. For example,

Simply press onto non-slipping surface

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Keep Cloth Rolls Straight with *Star-Grip Tubes**

These Star Tubes give your cloth rolls a straight smooth start, without tape and without overlapping. They prevent wrinkling and keep rolls and patterns straight and even throughout. "Star-Grip" Tubes save valuable time, too.

"Star-Grip" Tubes are available in either flap or non-slip coated types, as shown. Write for samples and prices today.

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65% of Akers shipments originating in the Georgia area are textiles; more than 125 mills in South Carolina use Akers; and 269 mills in North Carolina, 95% of the state's total, are served by the company.

In all Akers serves some 3,000 communities along the Atlantic Seaboard, from Georgia northward to Massachusetts.

James Hunter Strengthens Garnett Customer Service

In an expansion of its service to garnett customers, James Hunter Machine Co., North Adams, Mass., has opened new reclothing facilities in Mauldin, S. C. The new reclothing station will be maintained by James Hunter Inc., Southern subsidiary of the Hunter Co.

James Hunter Inc. manufactures a complete line of fiber opening and cleaning, and feeding and blending equipment; as well as cloth and waste baling presses, and moisture measurement and control devices. A staff of Hunter sales engineers is based at the Mauldin plant to serve textile mills throughout the South.

General Dispersions Plans Move To New Quarters

General Dispersions Inc., Paterson, N. J., has announced that it will move to its new quarters at 55 La France Ave., Bloomfield, N. J., in November. The company will continue to produce a line of nylon dispersions and solutions for use in fabric finishing.

The company has developed a new product, Central 1075, for the prevention of fraying and seam failure common in wash-and-wear fabrics. General Dispersions also markets aqueous dispersions of Du Pont's Zytel 61 nylon under the tradename Genton and alcohol-based solutions designated as Gental.

Sales Up, Profits Static In Chemical Industry

A record sales year of $28 billion for 1960 for the chemical industry is forecast by Maurice F. Crass Jr., secretary-treasurer of the Manufacturing Chemists Association.

The business outlook for the fourth largest U. S. industry for the remainder of this year and the first half of 1961 is the result of a survey of approximately 50 chemical companies conducted by the association.

Despite the 9% increase in sales expected this year over 1959's $25.7 billion total, Crass pointed out there is considerable doubt in the industry as to much if any improvement in the profit picture either in the remainder of 1960 or throughout 1961.

"The profit picture, unfortunately, has not improved to the same degree as sales. A mixed trend is apparent in corporate reports for the first six months of 1960," he said. Crass cited the fact that "71% of the respondents to the survey expect costs will increase during the last half of '60 with prices, for the most part, either remaining steady or dropping slightly. Prices will remain unchanged, 67% of those polled believe; 26% feel that prices will soften further."

Polymer Industries Opens Its New Million Dollar Plant

Polymer Industries Inc., Springdale, Conn., producer of textile specialty polymers, recently dedicated its new million-dollar plant expansion. The new expansion which doubles the previous laboratory, production, office and warehousing space, was started in March 1959. The new facilities include, in addition to a new general office area, a tank farm, a solvent-mixing plant and a polymerization plant.

The company will continue to develop and produce specialized polymers for use as coating, pigment binders, sizings and fabric finishes. Polymer Industries was founded in 1946.

Warner & Swasey Puts Emphasis On Foreign Sales

Warner & Swasey Co., Cleveland, Ohio, will have shipments of about $5 million in textile machinery by the end of 1960, according to Walter K. Bailey, president of the company. Shipments in the fourth quarter alone are expected to be about $1 million. Last year the company shipped about $4 million in textile machinery. Bailey made his remarks at a meeting of the New York Security Analysts.

He said that his hopes for future growth in the textile machinery division, which accounts for about 10% of the firm's over-all volume, reside in a growing foreign market. Bailey said the company would not depend on increased sales in the domestic market.

Total over-all shipments for 1960, according to the president, will amount to $58 million or more. This compares with shipments of $56.7 million in 1959.

Industrial Rayon Reports Loss In First Nine Months

Industrial Rayon Corp., Cleveland, Ohio, reports a net loss of $2.4 million for the nine months ended September 30, equal to $1.30 a share of common stock. This compares with net income of 50 cents a share for the nine months of 1959.

Sales for the nine months of 1960 amounted to $36.1 million. This compares with sales of $48.6 million for the corresponding period of 1959. Third quarter 1960 loss amounted to 54 cents a common share as compared to earnings of 20 cents a share in the third quarter of last year.

Owens-Corning Completes New Technical Center

Completion of a multi-million dollar technical research center located in Granville, Ohio, has been announced by Owens-Corning Fiberglas Corp.

Facilities consisting of several main buildings housing laboratories for glass, chemical, physical, mechanical and metallurgical research, reinforced plastic development, product testing, acoustical research, and a pioneering laboratory devoted to advance studies on new products and processes occupy the 154-acre tract.

A staff of more than 250 scientists, engineers and technicians is employed at the facility.

Company Gift-Giving Has Been Simplified

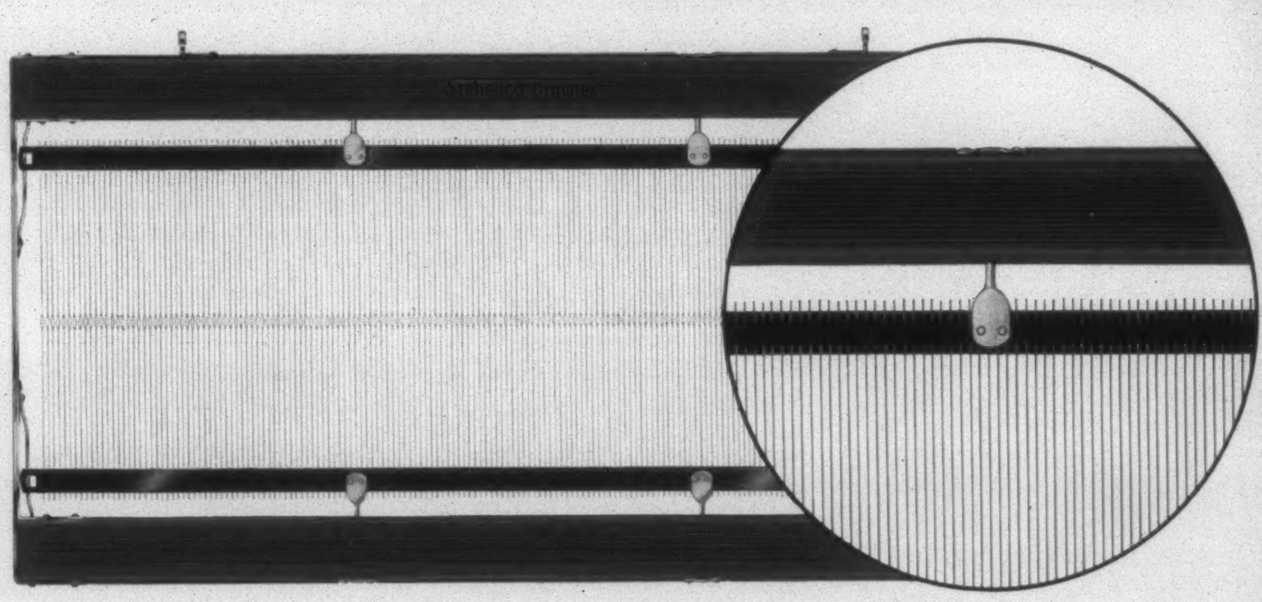
A gift-giving service for textile firms is being offered by Gallery Gifts Inc., New York City. The firm is offering a Gift-Bookard, which consists of a folder having a personalized greeting card on the cover with a registered gift certificate in the form of a postage paid reply card on the back. The folder illustrates 24 gifts from which the recipient may choose.

A company simply orders the number of folders it wants imprinted with its name and then has them mailed. The recipient merely checks off his choice of a gift and mails the card.

Stehedco

DRAWTEX HARNESS

IMPROVES EFFICIENCY AND QUALITY WITH PERFECT HEDDLE SPACING



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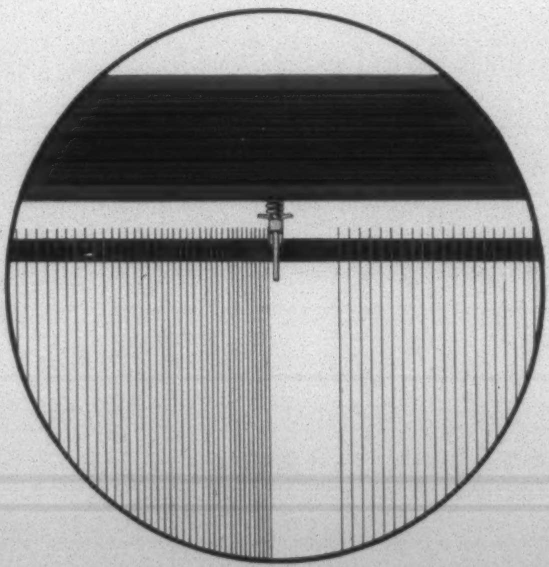

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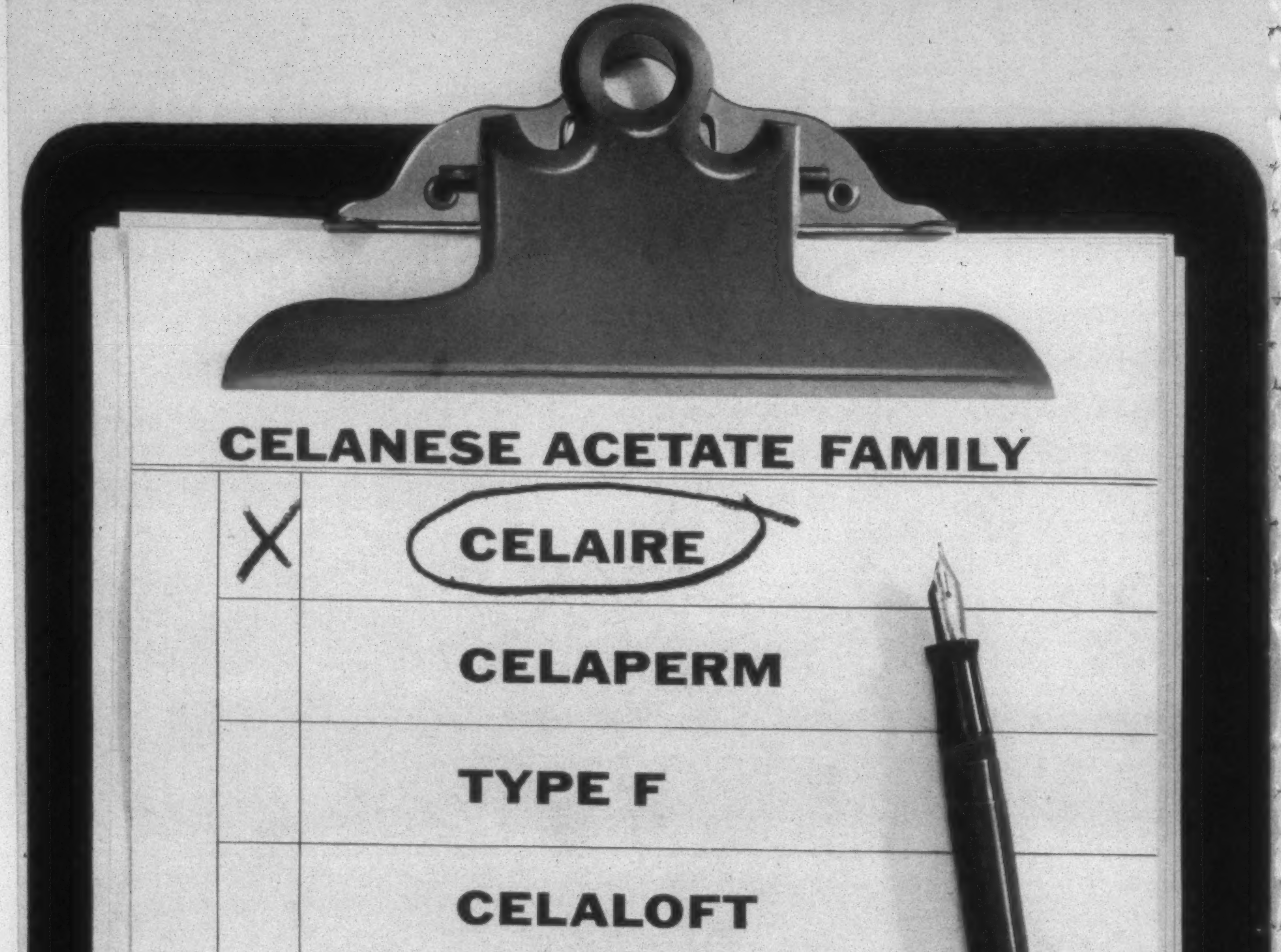
ACETATE...one



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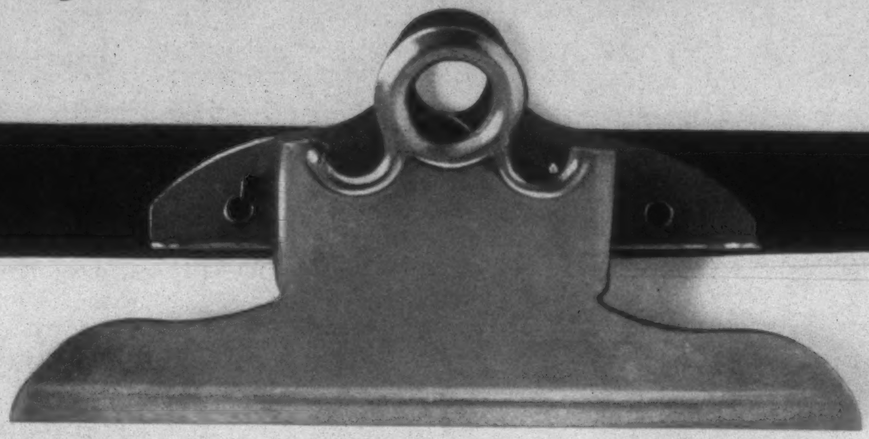

CELAIRE, like other members of the Celanese acetate family, has been engineered for particular end uses. Celaire acetate staple blended with nylon is highly desirable for upholstery, slipcover and drapery fabrics. The high quality of these fabrics is assured by the Celanese quality control program for licensed manufacturers. Under this protective program, the Celaire name may be used only on fabrics which have been tested by Celanese for colorfastness, construction, strength and durability.

Particularly notable are the luxury look and glowing colors in fabrics with Celaire. If you are not familiar with this outstanding acetate, contact us now. Celanese Fibers Company, Box 1414, Charlotte 1, N. C.

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Celanese Fibers Company is a division of Celanese Corporation of America.

Acetate...a Celanese contemporary fiber

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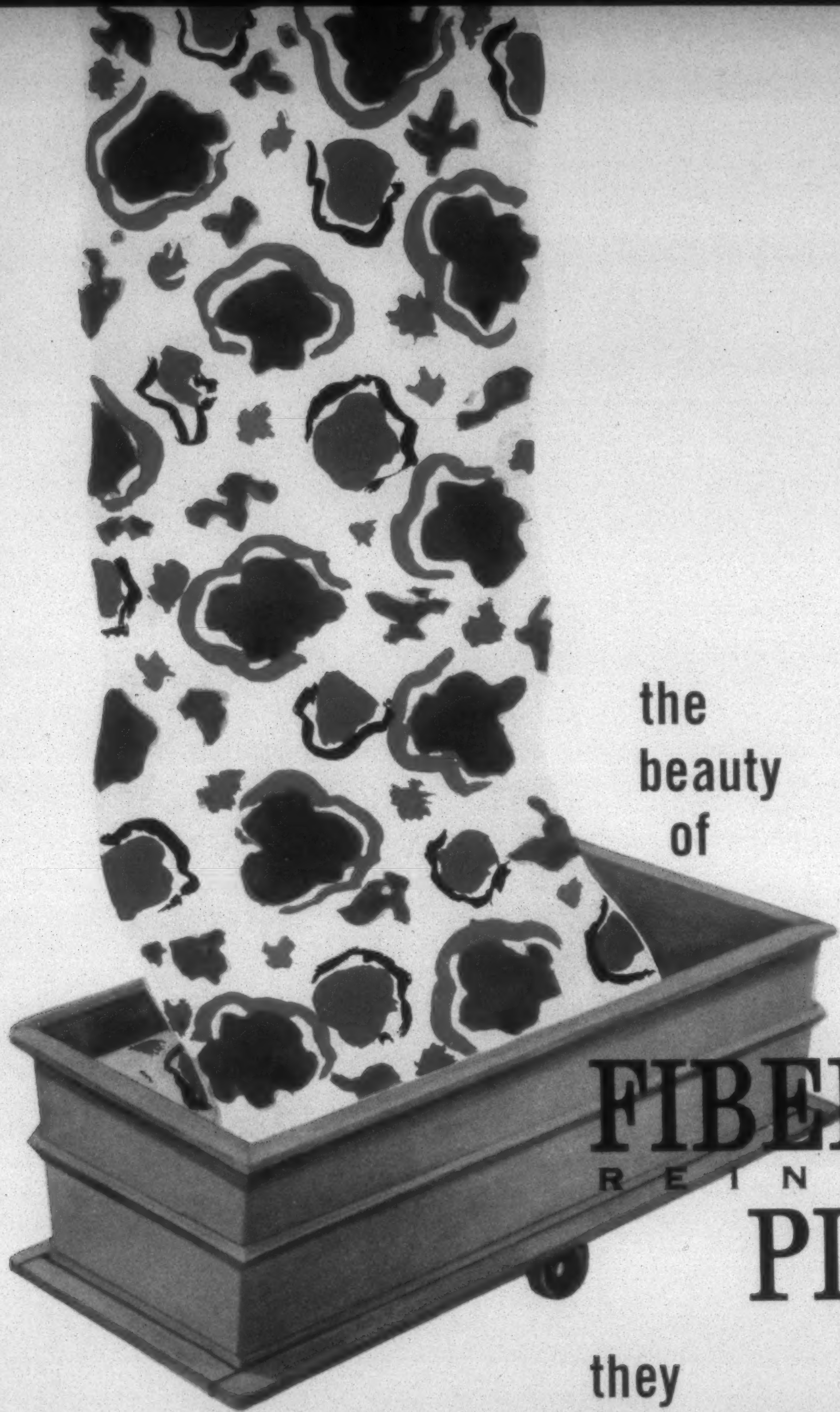
EXPORT SALES: Amcel Co., Inc., and Pan Amcel Co., Inc., 180 Madison Ave., New York 16.

IN CANADA: Chemcell Fibers Limited, 1600 Dorchester Street West, Montreal, Quebec.



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In . . . Cloth Boxes, Scrays
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THE TERRELL MACHINE COMPANY, INC. CHARLOTTE, N. C.

textile bulletin

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Some 22,000 Visitors Examine Latest Machinery Developments At The Southern Textile Exposition

AN estimated 22,000 visitors toured the 21st Southern Textile Exposition at Greenville, S. C., during the first week of October, and from all indications and reports the show went over big with them.

And while no attempt can be made here to call attention to all the highlights of the show, certainly the following items drew major interest. Additional information on any of them can be obtained by writing directly to the manufacturer. Subsequent issues of the Bulletin will review other items not included in the September show preview issue.

Dust And Waste Extractor
Saco-Lowell Shops

Shown for the first time at Greenville was Saco-Lowell's new No. 11 dust and waste extractor. The unit incorporates an auxiliary doffer that reverses the cotton mat allowing both sides to be cleaned by the air stream. The effect is to double the amount of dust and waste removed. The character of the waste removed by the condenser is predominantly pepper trash, according to Saco-Lowell. Usage of the unit to date is said to indicate that it removes at least twice the amount of waste removed by the ordinary No. 11 condenser and, in many cases, increases cleaning efficiency over 120%. One of the most important advantages cited for the unit is that it provides the extra cleaning action without subjecting the stock to an additional harsh beating.

The company also demonstrated its new easy-threading calender roll section for the card. The unit features a slot in one side in which the fiber web can be easily inserted.

Weighing Belt Blending Conveyor
James Hunter Inc.

James Hunter Inc. showed its newest opening room unit, a free-standing automatic weighing belt blending conveyor for use with existing conventional type blending hoppers. The company also demonstrated its Multi-Tuft bale blender which is said to assure thorough mixing of all bales in a grade and every grade in the blend. Cotton is removed from the bale in small tufts by a specially designed pinned cylinder. Each tuft is more uniformly and completely opened than hand labor permits.

Other Hunter equipment on display included the CenTriVac cotton cleaning unit which is designed to separate both heavy trash and light dust and fly from the stock with a positive cleaning action that minimizes fiber damage; and the CycloTuft opener cleaner which is designed to provide more efficient opening of machine-picked cotton.

Blender Feeder
Aldrich Machine Works

The new Lummus super-volume feeder shown by Aldrich Machine Works is said to have a capacity of about twice as much cotton as conventional feeders, without any increase in the length of the machine. A new combing roll arrangement on the machine is said to open cotton better and to blend it better than is possible on previously existing feeders. The unit can blend from more bales than ever before.

729B Blending Feed
Proctor & Schwartz

Its new No. 729B blending feed which is designed to automatically and accurately weigh and proportion various baled stocks into a process was displayed by Proctor & Schwartz Inc. The feed assures better opening of the fibers by the use of self-stripping rotary pin beaters on the hopper side and on the delivery side of the spiked apron. Proctor & Schwartz points out that two or more of these units may be arranged with a transverse floor apron upon which successive weighings of the different fibers are dumped, making an accurately proportioned, continuous "sandwich" of stocks.

Vacuum Card Stripping System
Abington Textile Machinery Works

Abington Textile Machinery Works displayed its vacuum card-stripping system. The system is designed to provide

WAK Industries of Charlotte used goldfish as bait in attracting attention to its varied line of counters.

efficient card stripping and co-ordinated waste disposal. The company's vacuum stripping attachment is said to reach the base of the card wires in its stripping operation. The system will strip as many as ten cards at once, averaging half a minute a card. This is said to result in an over-all gain of approximately 5% in card production.

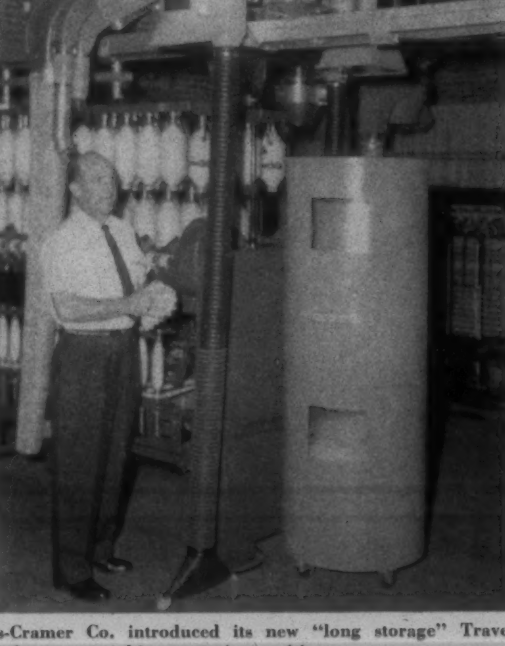
The system is also designed to collect and deliver waste at the lowest cost to the point where it is wanted in the best condition for sale or re-use. To accomplish this, vacuum outlets are provided for all types of waste collecting. Fixed piping leads to conveniently located waste stations to take up flat strips. Downtakes are handily located for attaching flexible hose to collect noils from noil cans, to take up picker motes, clean picker cages without their removal, collect card underscreenings, clean dust rooms, sweep, etc. etc.

The Abington system also provides, if desired, for the selection and segregation of various wastes. The newest type of receiver is the bottom-discharge model. These may be located directly over fixed bins or trucks which can be readily pushed to the baling press or where desired.

A drafting attachment to replace calender rolls on a cotton card was also demonstrated by Abington. The unit, called Cardpen, is designed to provide a 20% increase in production rate without a loss in quality. In the unit the web from the doffer is condensed into sliver which passes through a set of rolls and a rotary comb.

Super Carding Device
Daiwa Spinning Co.
(Edward S. Rudnick)

A carding rate of 20 pounds an hour is said to be possible with the Model D super carding device produced by Daiwa Spinning Co. of Japan and sold in the U. S. by Edward Rudnick. The unit features two licker-ins—the first of which operates at 1,200 r.p.m. and the second at 450 r.p.m. Because it is possible to obtain a surface speed of the first licker-in higher than the surface speed of the cylinder, opening and cleaning can be done at the speed suitable for the quantity fed from the feed roller. Since the second licker-in is hollow and has a perforated surface, short fibers are sucked into the interior and discharged out of the machine. The quantity of dust and waste to be removed can be regulated by adjusting the position of the mote knife and under sheet, as well as by controlling the suction air volume of the fan.



Parks-Cramer Co. introduced its new "long storage" TravelVac, shown here approaching emptying position.

Feathertouch Drawing Frame
Ideal Industries

Ideal Industries Inc., Bessemer City, N. C., demonstrated its Feathertouch 750 drawing frame. The two-delivery unit is designed to produce as much sliver as the average latest model four-delivery frame. The 750 employs fewer parts in relation to the poundage of sliver produced and permits safe, steady speeds of 750 f.p.m. with less down-time than four-delivery frames.

The unit is made up as an individual two-delivery frame to insure proper efficiency when operating at the super speeds. The drafting system is adaptable to processing carded cotton, combed cotton, all types of synthetics, blends and wool with staple lengths from 7/8 through three inches.

It was equipped with 18x42-inch cans but coilers can be furnished for 15 or 16-inch cans. Newly designed large coiler tube gears are suspended on heavy duty ball bearings which turn freely and do not ride or drag on the spectacle plate raceway.

Each frame is equipped with a compact individual cleaning system which consists of individual hoods encircling approximately one-third of the circumference of each drafting roll, top and bottom.

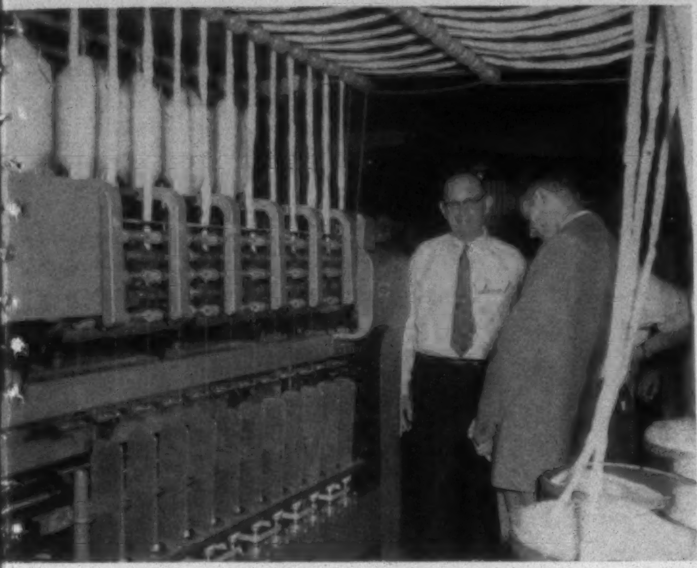
High Speed Drawing Frame
Medley Mfg. Co.

The Model ER high speed drawing frame produced by Societe Alsacienne de Construction Mecaniques was shown by Medley Mfg. Co., Columbus, Ga. Speeds of up to 650 f.p.m. for carded stock and 500 f.p.m. for combed stock were cited. The unit is designed to handle cotton, short staple synthetics and blends. It has a drafting system composed of four fluted bottom rollers and four top rollers providing a two-zone drafting; a pre-drafting between the third and fourth roller which can be set from 1 to 2; and one main drafting between the first and second rollers which can be set from 4 to 8 with a maximum difference of 1% between two consecutive drafting ranges.

Narrow Arrow Spinning
The Roberts Co.

Spindle speeds of over 13,000 r.p.m. are cited for the Arrow spinning frames shown by the Roberts Co. The company's 25-inch demonstration frame at the show was operating at 15,000 r.p.m. on one side, spinning 40s combed cotton with a 1$\frac{13}{16}$-inch ring, a traveler speed of 7,120 f.p.m. and a front roll speed of 177 r.p.m. Package size was 11x5½ inches.

The other side of the 25-inch frame was spinning 75% Dacron and 30% wool on the worsted system at a spindle speed of 9,550 r.p.m.



F. A. Young Machine Co. introduced its new Vertical Y-5 spinning frame featuring drafts of from 10 to 650 from drawing sliver or 14x7 bobbins.

The new big-package all-ball-bearing frames are said to embody many important new features and refinements. Arrow spinning is said to have the versatility to handle any natural or man-made fiber or combination of blends with a selection of PosiWate PermaSet drafting systems to suit a broad range of fiber lengths.

The new all-ball-bearing head and head gearing provide for a broad range of drafts and twists with only one-fourth the number of change gears formerly used. The range of lay changes controlling the bobbin build is also extended to suit yarn numbers from 2s to 120s.

The 36-inch frame was spinning 25s yarn of 100% viscose at a spindle speed of 11,000 r.p.m. on one side. Ring size was 2¼ inches and the package size was 12x6 inches. The other side of the frame was spinning 100% Orlon on the worsted system. It was producing 1/20 yarn at a spindle speed of 8,000 r.p.m. Package size was 12x7. Ring size was three inches.

Spinning Changeovers
Whitin Machine Works

Its latest developments in spinning changeovers were shown by Whitin Machine Works. Two 36-spindle frames, an F2 and an F3, were used to demonstrate the new changeover material.

Model F3 was equipped with a 60° roll stand and had the UT3 top arm on one side and the new Whitin double-apron drafting system on the other. The new drafting system incorporates the long-bottom apron. The UT3 changeover, with all anti-friction top bearings, is said to be well-suited for the finer counts of yarn. This frame was spinning 21s cotton with a twist multiple of 4.75, a draft of 35 and an 11-inch traverse. Spindle speed was 8,500 r.p.m.

The other frame, Model F2, was equipped with a 45° roll stand and the Whitin STA system top arm weighting including the new Casablancas GX2 cradle. The second side of the frames was demonstrating the conversion of a competitive long-bottom apron system to the Whitin STA-R double-apron system.

With the two-piece GX2 cradle, all three lines of top rolls can be lifted up with a suspension arm to facilitate cleaning.

The STA-R system has a long bottom apron which is supported by spring tension. This is said to be particularly adaptable to frames which have the Roth system.

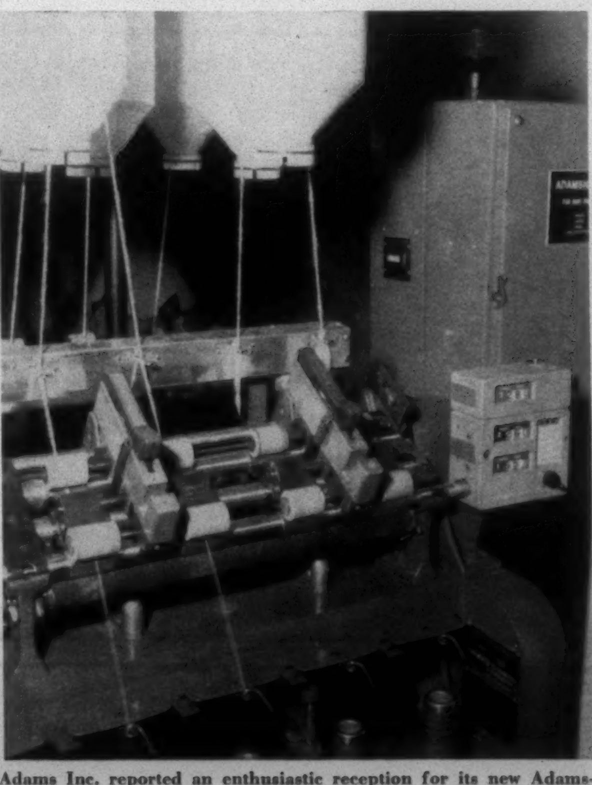
The Model F2 was spinning 30s cotton with a twist multiple of 4.50, and an 11-inch traverse. Spindle speed was 11,500 r.p.m.

Spinning Changeovers
Saco-Lowell Shops

Among the items featured by the replacement parts division of Saco-Lowell Shops was the new oil-less drafting changeover for Shaw spinning and for FS-2 and FS-3 roving. These two conversions consist of several new molded nylon components which are said to stop wear and to need no lubrication. The changeover incorporates a number of features designed to reduce maintenance at major trouble spots in the drafting zone. They include: snap-on support arm bearings, nylon cap bar nebs, back saddles with adjustable nylon bearing blocks, and nylon inserts on the front saddle for Shaw spinning only.

The oil-less saddles, the oil-less cap bar nebs and the oil-less tension roll supporting arms are designed to complement each other. The elimination of oil is designed to reduce lint accumulation and thereby reduce the amount of roll picking required to keep the drafting assembly clean.

The snap-on support arm bearings for roving and spinning frames are designed to provide an ideal bearing condition and to aid in maintaining the alignment and smooth running of the apron. The contour of the nylon surface which bears against the supporting arm is said to assure correct placement, exactly locating the proper bearing area regardless of the degree of support arm wear. The bearings



Adams Inc. reported an enthusiastic reception for its new Adamstop and Adamsignal devices for ring and roving frames.

are quickly snapped into place over the area which is subject to wear on the inner bend of the arm, assuring long life of both tension rolls and the support arms. Nylon bearings are inexpensive and are said to eliminate the greater cost of replacing support arms.

The use of the nylon cap bar nebs is said to go a long way toward solving the problems of top roll wear and lubrication. It is said to have an added advantage over the previously used nylon top roll gudgeons or anti-friction top rolls in that it requires a minimum investment.

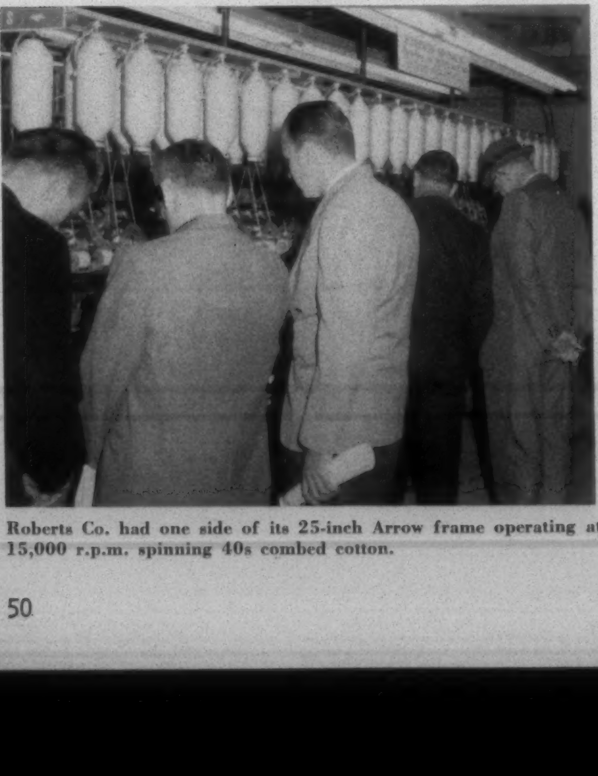
For Shaw spinning Saco-Lowell has available both back saddle bearing blocks made of nylon and nylon inserts for the front saddle. For FS-2 and FS-3 roving, only the nylon back saddle is necessary if the front top roll is anti-friction. This application eliminates lubrication for the entire top roll assembly and reduces lint accumulation in the drafting area.

Automatic Filling Builder
Southern Machinery Co.

Southern Machinery Co. introduced its new Bild-o-Matic automatic spinning frame filling builder designed to wind any type of quill for any make of automatic loom. The company says this is the first builder motion which is successful in putting the tip bunch on direct spun filling. The builder motion controls the complete build of the bobbin and also positions the ring rail for doffing the bobbins. The unit is undergoing final testing and is expected to be in production in 1961.

Maier-Flugel Roving Flyer
Watson & Desmond

Some 30 to 40% more roving on the bobbin is said to be possible with the Maier-Flugel Type F flyer displayed by Watson & Desmond. The flyer is equipped with a spring tension presser finger and roller which literally rolls the roving on to the bobbin. The increased weight of roving obtained is said to result from the roving being laid closer together and being wound without friction on the bobbin. The roller is equipped with an SKF bearing for smooth action.



Roberts Co. had one side of its 25-inch Arrow frame operating at 15,000 r.p.m. spinning 40s combed cotton.

Dixon Corp. featured its Cavalla Roth drafting changeover, outstanding for its cleanliness and simplicity.

Automatic Doffer
Willcox & Gibbs Sewing Machine Co.

A doffing and replacement rate of 6,000 to 8,000 spindles per hour is cited for the new Treufus doffing machine shown by Willcox & Gibbs Sewing Machine Co. This rate allows for the auxiliary operations such as handling of full and empty bobbins. The percentage of yarn breakage is said to be virtually nil, so that piecing up is rarely needed.

The unit is mechanically actuated and manually operated, thereby eliminating electrical drives and the necessity of wiring connections. It is entirely mobile and may be moved from frame to frame. It will fit all gauges.

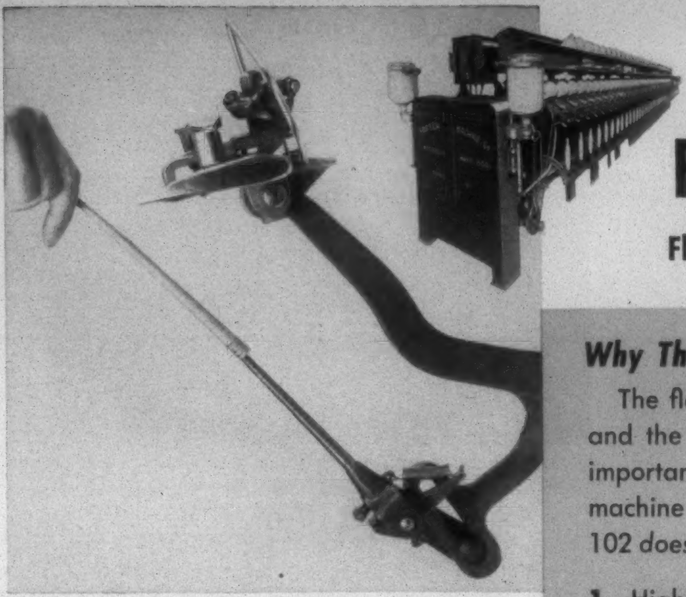
In operation, the operator pushes down a rail attached to the frame. The unit's dimensions are: width—21 inches; height—63 to 72 inches; depth—56 inches front to back.

The device utilizes a series of inclined planes to lift the full bobbin from the spindle. The first of these units engages the base of the bobbin and, by virtue of the forward motion of the machine, breaks its contact with the spindle and partly raises the bobbin on the spindle. Each succeeding unit lifts the bobbin higher until it clears the spindle and slides down a chute to a receiving box. A guide is located in advance of the first unit of the inclined plane series which moves both the yarn and traveler to the back of the ring.

Empty bobbins are loaded in a drum and are fed automatically to a point of discharge from which they are released by a sensing device which triggers a releasing mechanism. The releasing mechanism is synchronized by the sensing device which bears against the spindle thus timing the accurate placement of the empty bobbin on the spindles. A spring loaded hammer makes contact with the top of the replacement bobbin coincidentally with its release by the triggering mechanism.

Automatic Doffer
Kanegafuchi Machine Co.
(Edward S. Rudnick)

Considerable interest was shown in the Kanegafuchi Auto-Doffer shown by Edward Rudnick. The Auto-Doffer automatically doffs spinning and twisting frames. In operation the unit moves itself down two guide rails fixed to the side of the frame. As it does so a guide moves the yarn and traveler to the back of the ring. Another guide tilts up the lappet and thread guide. A kicker lever forces the bob-



TILTING BOBBIN PIN FOR SOFT TWIST COPS WHERE SINGLE BALLOON AND MINIMUM TENSION ARE REQUIRED

FOSTER MODEL 102

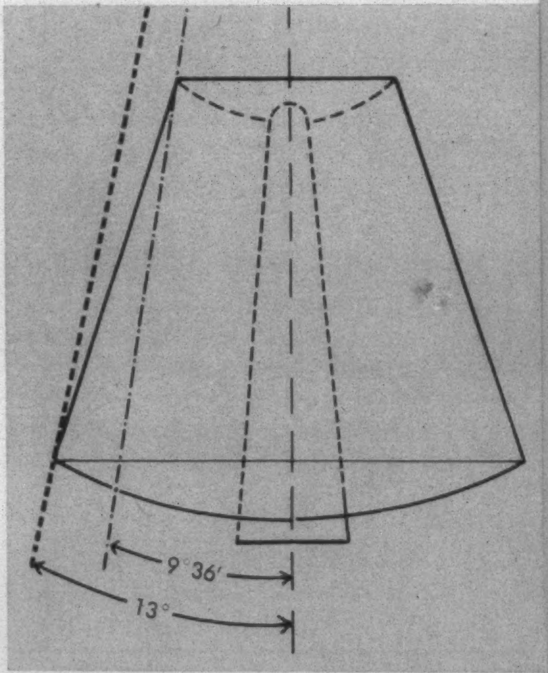
Flexibility — Economy — Quality Winding

Why This Machine Produces a Quality Package

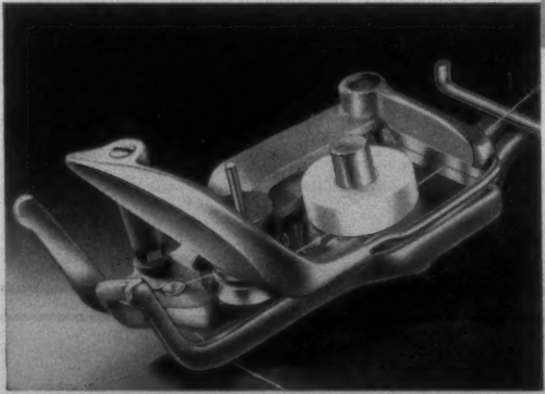
The flexibility (adaptability to changing conditions) and the economy of the Foster Model 102 are very important, but they would be of far less value if the machine did not produce a quality package. The Model 102 *does* produce a quality package and here's why: —

1. Highly efficient slub catchers automatically inspect the yarn.
2. The 13° convex base cone promotes free delivery on the knitting machine — prevents underwinding and "nipitis".
3. Yarn conditioning and waxing attachments give proper softness and lubrication to yarn.
4. Ribbon breaker prevents ribbon wind.
5. Idler shell on winding drum prevents burning or chafing of yarn at nose of cone. Hairline fit prevents cutting.
6. Adjustable angle of wind assures properly formed packages which hold their shape in transit.
7. Even the softest twist yarns can be wound with minimum breakage, because they can be wound with no tension, if necessary.

Learn also about the flexibility and economy features of the Model 102. Write for Bulletin A-95-A.



DRAWING OF 9°36′ TAPER CONE



SLUB CATCHING AND WAXING ATTACHMENT

FOSTER MACHINE COMPANY

A Yarn Winder for Every Purpose

Westfield, Massachusetts, U.S.A.

SOUTHERN OFFICE — Johnston Bldg., Charlotte, N. C. CANADIAN REPRESENTATIVE—Ross Whitehead & Co., Ltd., 2015 Mountain St., Montreal, Que., and 100 Dixie Plaza, Port Credit, Ontario. • EUROPEAN REPRESENTATIVE — Muschamp Textile Machinery (Sales) Limited, Elder Works, Wellington Road, Ashton-under-Lyne, Lancashire, England.

A Member of American Textile Machinery Association bin upward breaking contact with the spindle. A swinging arm with rubber grippers grabs the top surface of the full bobbin and lifts the bobbin vertically from the spindle. Excess yarn is severed by a knife.

The loose end of yarn at each spindle is held by means of a special brush until the empty bobbin is placed on the spindle. As the gripper holding the raised bobbin comes to the highest position in its raising motion, a spring on the top of the pushing rod above the full bobbin forces it away from the gripper, down a chute and into the full bobbin box.

Empty bobbins are individually lifted by a continuous bobbin carrier and aligned and stacked into a guide chamber where each bobbin is held by two holders. As the guide chamber moves over an empty spindle, the bobbin being caught on the top of the spindle is released from the lower holder while the upper holder guides the bobbin to a vertical position of slide down on the spindle. An auxiliary arm taps the bobbin forcing it down to its running position. Tappets and thread guides are released from the up position frame in less than two minutes. The rate of yarn breakage is said to be 30 to 50% less than with hand doffing.

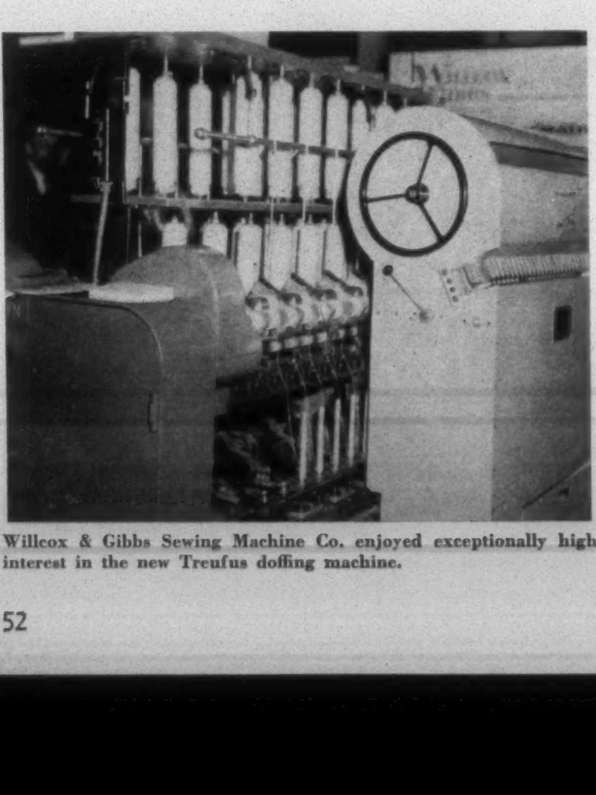
Vertical Y-5 Spinning Frame
F. A. Young Machine Co.

A new spinning frame, the Vertical Y-5, was introduced by F. A. Young Machine Co. The new unit is a wide range frame that will draft from 10 to 650 from 50 grain can or package sliver of .25 hank roving. The Vertical Y-5 is designed to spin all types of fibers with a range from $\frac{15}{16}$ to six-inch and yarn counts from 2s to 100s.

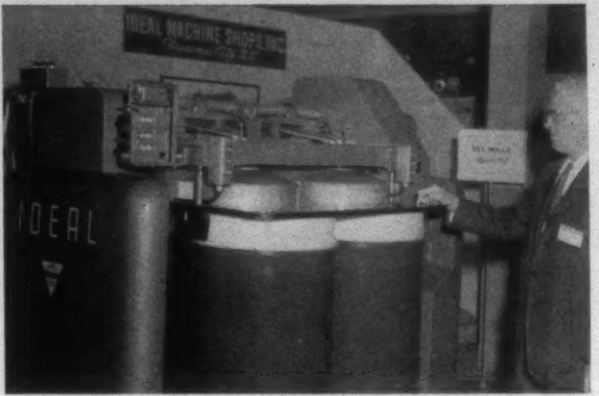
The frame is also equipped with spiral fluted rolls designed to prevent roll patterns due to parallelization of flutes and top rolls. The spiral flutes also eliminate any minute vibration which sets up fretting oxidation. They also greatly improve the uniformity, strength and general appearance of the yarn, it is reported.

The Vertical Y-5 is completely anti-friction with no points of lubrication. Bottom roll bearings are self-aligning.

Young also demonstrated its Micro-Electric aligning equipment for the precision aligning of all types of frames. The unit is said to check, align and level spinning rolls, flyer frame rolls, drawing rolls, twister rolls and winder rolls within .005-inch.



Willcox & Gibbs Sewing Machine Co. enjoyed exceptionally high interest in the new Treufus doffing machine.



Ideal Industries reports steady speeds of 750 f.p.m. for the new Feathertouch 750 two-delivery draw frame.

Schweiter Filling Winder
H. J. Theiler Corp.

The Schweiter MSL filling winder with automatic feeding device was shown by H. J. Theiler Corp. The unit is said to be suitable for the winding of cotton, wool and worsted, linen, etc. It eliminates magazines or batteries since the winding units are automatically fed with empty quills. The winder is used for normal quills with or without initial cones up to $10\frac{3}{16}$ inches long and 1¾ inches in diameter, with a base of 1½ inches. Various types of yarn of different counts, quality and color can be wound at the same time on the same unit. The winder was equipped with a special dust removing device which consists of a plastic shield which encloses the supply package. Tail-less packages are provided for by a rotor device which entirely covers the end. An automatic packer box filling device is available to position the wound quills in boxes, eliminating subsequent manual arrangement.

Mighty Mite Twister
Meadows Mfg. Co.

Its Model N Mighty Mite twister was featured by the Meadows Mfg. Co., Atlanta. The Model N twisters are designed for fine yarn mills requiring both high speeds and large packages. The large package is obtained through length rather than larger rings which would necessitate a decrease in spindle speeds. The twister can be furnished with bobbin builds up to 15 inches in length. The 5½-inch gauge unit is only 25 inches in width, providing a valuable saving in floor space.

The Mighty Mite twisters are equipped with double or single line ball bearing bottom rolls; 10-inch diameter individual drive pulleys mounted on heavy-duty, self-aligning ball bearings; roller bearing spindles; and ball bearing doubler idlers. The ball-bearing doubler idlers are said to allow easy reversing and any necessary belt take-up.

Stationary lifter rods with combination steel and cast iron ring rail seats are equipped with ball bearing rollers to eliminate lifter bushings. The steel ring rails are counterbalanced by heavy tension springs to allow smooth ring rail operation. Stationary separators are of the windshield type, mounted on the base rail, and extending through the slots in the rails.

The thread guide and balloon control rings traverse directly as a unit with the ring rail. This allows for a constant yarn balloon and yarn tension. The thread guide may be swiveled back to allow easy doffing of the bobbin.

Other Meadows units on display were the Model M Jumbo twister and the Model M Speedmaster twister. The Jumbo twisters are available in 10-inch gauge and larger and the Speedmaster twisters are available in 4½ to 10-inch gauge. The Model M twisters are designed with flexibility and simplicity in mind. They incorporate the same basic features as the Model N line. Bottom and top rolls are either chrome-plated for wet twisting or hardened and anti-rust finished for dry twisting.

Meadows also showed its new single-end, single-spindle, automatic stop motion which stops the bobbin, spindle blade and yarn feed instantly when single yarn in the creel breaks or runs out. It leaves the whorl on the stopped spindle operating freely on ball bearings, which means there is no wear on the tape from slippage, and no slow-down on the other spindle driven with the same tape.

Duplex Doubler-Twister
Fletcher Industries

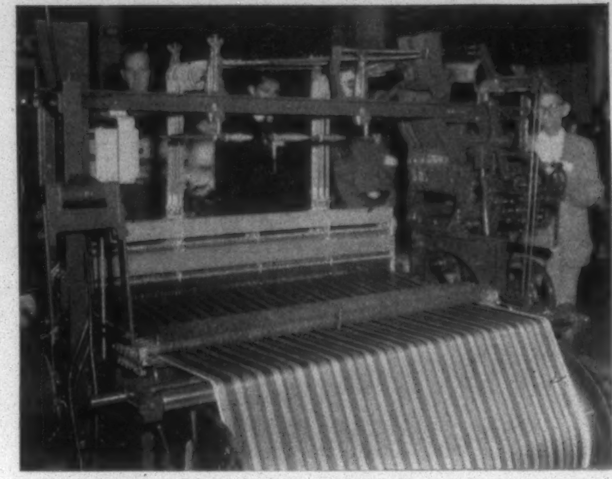
Fletcher Industries displayed its Master Duplex doubler-twister with 4¾-inch rings. The unit was equipped with attachments for the novelty twisting of synthetic or natural yarns. The same twister can be used for straight plying or twisting. It was equipped with new Posi-Feed clutch driven feed rolls.

The twister features bobbin capacities up to five pounds of filament yarn and 2½ pounds of spun yarns. The smooth positive traverse motion has provision for building three different type bobbins and variable tapers. A simple enclosed stop-motion stops both the feed rolls and spindle when either a single ply or the twisted yarn breaks.

It has a custom built yarn creel with or without tension devices. Easily leveled ring mounts suitable for any type of ring and holder are securely locked in place. All mechanical portions of the unit are either enclosed or covered to insure lint-free operation.

Spindle whorls are up to 2½ inches in diameter, providing greater belt contact and more accurate twist. Uniform and accurate twists are assured by two gear-driven 2¼-inch diameter chrome-plated feed rolls.

Terrell Machine Co. drew large crowds with the unveiling of the new Schlafhorst Autoconer operating at 1,100 y.p.m.



Crompton & Knowles' C-7 pushbutton 4x1 box loom was operated at 185 p.p.m. producing fancy cotton dress goods.

Fletcher also displayed its Jumbo Duplex 22-spindle doubler twister featuring a five-pound package. The unit has six-inch rings and 9 and 10-inch traverse on double tapered tubes. The gauge is nine inches center to center. The frame is of cast iron and steel with large roller bearing spindles.

Schlafhorst Autoconer
Terrell Machine Co.

A number of different counts and types of yarns were being wound on the Schlafhorst Autoconer shown by Terrell Machine Co. Since each spindle operates independently, each can wind a different yarn count, different color and different style from a wide range of different spinning bobbin sizes. Some of the different counts and yarns being wound on the display unit include: 18s combed cotton on 4°20′ cones, six pounds net; 32s Dacron-wool on 3°30′ cones, three pounds net; 37s combed cotton 4°20′ cones, five pounds net; 60s Dacron-Wool on 3°30′ cones, three pounds net. Winding speed was 1,100 y.p.m., and speeds up to 1,300 y.p.m. are said to be possible.

Each section can be changed without need of additional parts to any type of cone or cheese with six-inch traverse. Maximum package weight is eight pounds at 12-inch diameter. The same knotter handles a wide range of counts from 6s to 60s. The ten-spindle sections are self-contained units and the machines are available from 10 to 50 spindles.

The tender's job on the winders is said to be reduced to filling supply magazines and doffing full packages. The automatic retying of broken ends eliminates rehandling of partly emptied bobbins. No starters or special cones or sleeves are required on the unit.

Terrell also demonstrated the Servoloom Autocopser filling winder produced by Schlafhorst. This unit boasts speeds of up to 12,000 r.p.m. on cotton, spuns, worsteds and filaments, and has stepless control. The independent winding, doffing and pinboarding of each spindle provides flexibility. Empty boards are inserted at the front of the machine, full boards are removed from the rear. Some 144 pins can be placed under one winding head. The unit features continuous operation regardless of the pinboard feed. Full bobbins are placed on the pinboards in the same sequence in which they are wound from the supply package so they may be placed in the shuttle in the same order.

Spectomatic Electronic Slubcatcher
Uster Corp.

Uster Corp.'s Spectomatic transistorized slubcatcher was shown in operation on two winders. The unit checks cotton, worsted woolens and all blends. The unit will operate on yarn counts of 20s to 120s. The Spectomatic is not sensitive to power fluctuations and operates on a very low voltage. It will remove 90% of the slubs in any yarn. Any yarn irregularity the mill wishes taken out can be cut by the machine, including slubs, double threads, eyebrow lint and piece-ups.

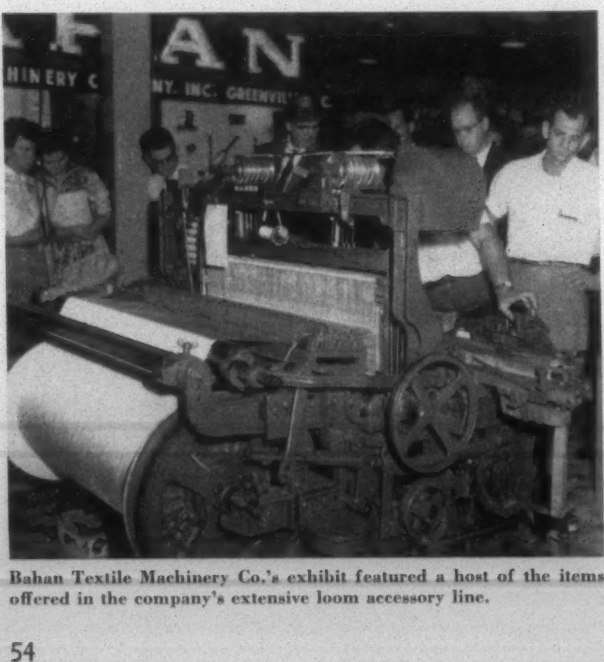
Uniconer Cone Winder
Leesona Corp.

The recently introduced Uniconer automatic cone winder was shown by Leesona Corp. The unit is said to operate at speeds up to 1,200 y.p.m. and has a ten-second knotting cycle. Each spindle has an automatic knotting device which greatly reduces down-time caused by the removal of defects such as slubs, gouts and weak spots. Operating efficiencies of up to 95% are claimed for the unit.

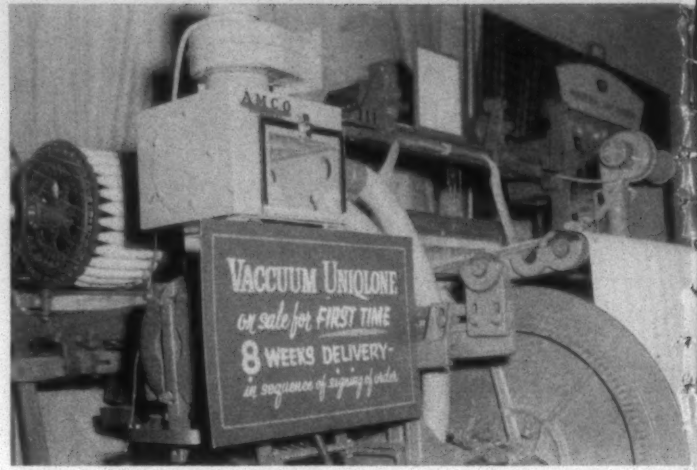
Maximum package size on the Uniconer is approximately 12 pounds with a base diameter of 14 inches. Types of packages include knitting, jumbo warping and dye tubes as well as all standard cones. It can accommodate yarn counts from 8s to 80s and has driven, disc type waxing arrangement. The standard full-length cone winder is double sided with 96 spindles. The Uniconer is built in 12-spindle sections. A pneumatic cleaning system is built into the unit.

Three Unifil loom winders were also displayed by Leesona. One unit was operating on a loom using stretch yarn filling to show its adaptability to that type of yarn. Another demonstrated its ability to wind man-made filament.

The third Unifil-equipped loom demonstrated the unit's adaptability to looms running double-change or semi-feeler. The loom was weaving a cotton osnaburg fabric. This latest adaptation makes allowances for piece bobbins transferred by the fork mechanism on the loom. It diverts the bobbins into a separate chute where they can be retrieved by the weaver and replaced in the full bobbin magazine for re-use whenever sufficient yarn remains.



Bahan Textile Machinery Co.'s exhibit featured a host of the items offered in the company's extensive loom accessory line.



American Moistening Co. displayed an improved version of its recently introduced Vacuum Uniqlone loom cleaner.

The No. 210 Twister-Coner was shown twisting and coning man-made filament yarns in one operation. The unit produces large, precision wound packages suitable for shipping or for immediate use in subsequent processes, such as a supply to the Unifil loom winder.

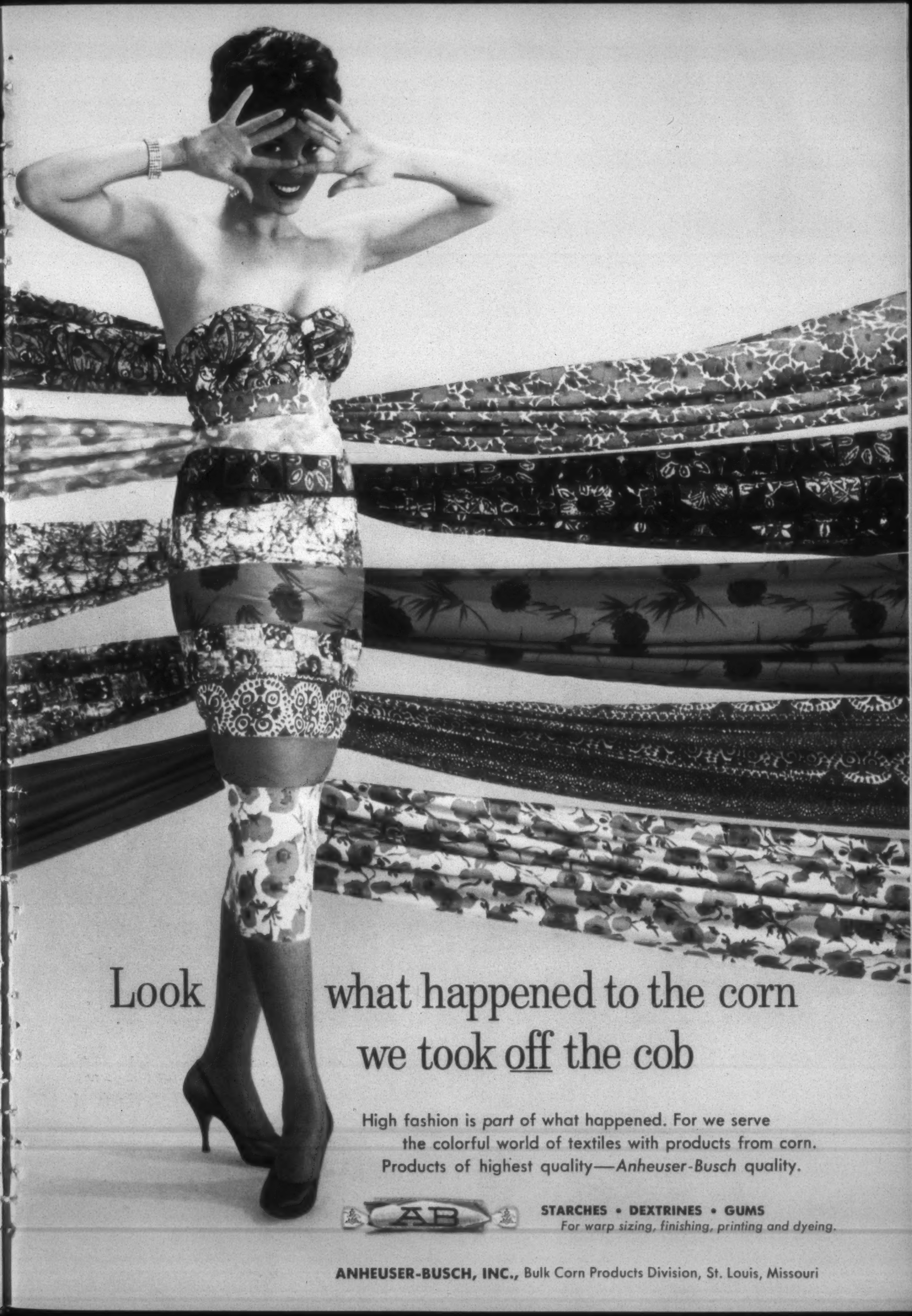
Model G3 Warper
Allen Co.

The Allen Co. had on display its Model G3 warper which is designed to solve the problem of uniform warp density. The unit's new hydraulic control is said to do away with the hard-shell, soft-core warps produced on conventional warpers. The Model G is driven by surface contact against the beam barrel and yarn by a drive-presser cylinder. Since the drive-pressure cylinder always remains in the same position, the nip of the yarn between the cylinder and beam is unvarying. The yarn angle is always constant and the distance from the measuring roll is always the same. Uniform winding tension results. Standard maximum speed of the unit is 1,000 y.p.m. but other speed ranges can be provided.

Ruti Box Loom
H. J. Theiler Corp.

H. J. Theiler Corp. had on display an 84-inch Ruti BANLXM 1x1 box container loom. Equipped with a Staubli dobby, the loom was producing two leno fabrics side by side. Filling and warp were combed cotton, English 20s. It was operating at 160 p.p.m. with 83 p.p.i. The unit was equipped with a box container filling device which provides for the placing of a box of bobbins next to a slide chute type of filling magazine. When a pirn is replaced in the shuttle, a gripper moves a new bobbin from the container box and releases it into the slide chute. Immediately preceding the change, a sleeve-adapter glides over the bobbin tip and withdraws the yarn end.

The Ruti loom, a product of Ruti Machinery Works, Switzerland, was also equipped with the Loepfe optical electronic bobbin feeler. This does away with the mechanical "finger" usually used for this type of indication. With the Loepfe electronic unit, a band of Scotchlite tape is applied to the bobbins. When the yarn on the bobbin is down to the Scotchlite band, the band reflects a beam of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AB

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For warp sizing, finishing, printing and dyeing.

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incident light from the head of the Loepfe unit. This, in turn, actuates the bobbin changing mechanism.

The Maxbo Shuttleless Loom
Southeastern Loom & Machine Works

Southeastern Loom & Machine Works, in co-operation with Edda International Corp., demonstrated two Maxbo shuttleless looms. One was operating at 350 p.p.m. producing 65% Dacron and 35% cotton rainwear fabric. Yarn count was 26s on both filling and warp. The fabric had 62 p.p.i. The other was operating at 320 p.p.m. producing a 10-ounce denim fabric 37½ inches wide with 46 p.p.i. Filling was 13s and warp was 9s.

The Maxbo looms utilize a jet of air to insert the filling into the shed and picking speeds up to 400 p.p.m. are cited for the unit. The yarn is fed from two large capacity cheeses. The loom can use thinner reeds, it is pointed out, because the wearing action of the shuttle is done away with. This, in turn, enables knots to pass more freely. The warp beam regulator operates entirely automatically and does not require setting. It is actuated by the tension beam and retains a constant warp tension from the loaded to the empty beam. Setting of warp tension is done by means of tension springs. Electrical or mechanical warp detection can be supplied.

Edda also demonstrated its Titan warp tying machine which is designed to stop in the case of a fault in the lease.

Pushbutton Box Loom
Crompton & Knowles Corp.

In the Crompton & Knowles booth, a pushbutton C-7 4x1 box loom was producing fancy cotton dress goods. The loom was operating at 185 p.p.m. producing a fabric of 58 p.p.i. with 40/2 cotton warp and filling.

The new electric protection feature on the C-7 looms is designed to provide more time in which to stop the loom after protection indication, resulting in a gentler stop for the loom. With electric protection, the magnetic switch consisting of a coil and magnet imbedded at about the center of the lay and a piece of iron imbedded in the heel of the shuttle operating with certain other electrical elements in the control panel combine to do the job formerly performed by mechanical protector rods, daggers and bunters. Since the electric protection begins stopping the loom earlier, the shuttle is usually able to clear the shed so that no smash occurs.

The loom has three pushbutton controls: a start button, a stop button and a back-up button. When the back-up button is pressed, the loom reverses until the lay is approximately at back center. The button can be pressed intermittently to back the loom up by small amounts. The loom will not reverse any further than back center even if the back-up button is held down.

Draper Shuttleless Looms
Draper Corp.

Considerable interest was shown in the two models of its shuttleless looms featured by Draper Corp. A 40-inch model was weaving a sports denim at 250 p.p.m. The fabric was a 2/1 L. H. twill with 40 p.p.i. Warp was 14s and filling was 16s. The harness motion of the shuttleless looms features several departures from the conventional. The treadles are designed and mounted so as to pivot from the front of the loom, providing for quick and easy adjustments. Identical harness cams are used in all harnesses, for all shades, with three different warp openings possible with the same harness cams.

The totally enclosed clock spring top has a gear and worm arrangement which permits adjustment of all springs simultaneously with a socket wrench from outside of the housing. Harness frame pull-down is accomplished through a system of harness rods and harness hooks. This, combined with the clock top, provides a smooth positive harness action.

The loom was equipped with a high-roll ratchet take-up. Cloth rolls can be doffed simply, with little effort and without stopping the loom, Draper reports. The cloth is diverted by guide rolls to provide for a 24-inch diameter roll of cloth.

The second model of the shuttleless loom was a 46-inch slow-motion model with glass covers on the tape motion drums showing how the metal tapes meet in the center of the looms and transfer the filling.

Picanol Automatic Looms
S. A. Metiers Automatiques Picanol

Three models of the Picanol President line of looms were shown in operation at Greenville. Model CM-E featured a positive Staubli dobby for 20 harness. The loom was operating at 185 p.p.m. producing upholstery goods of 36 p.p.i. on 12 harness. Reed space was 69 inches. Warp was 30/2 spun rayon and filling was 6/1 spun rayon.

Model CC-C for six harness was operating at 260 p.p.m. producing broadcloth of 64 p.p.i. on four harness. Filling yarn was 32/1 combed cotton and warp yarn was 46/1 combed cotton.

The Model CL-C President for four harness was producing percale sheeting of 92 p.p.i. at 170 p.p.m. Warp yarn was of 32.5 combed cotton while the filling yarn was of 37.5 combed cotton. The reed space was 86 inches and the unit was equipped with split selvage. It was also equipped with the Unifil loom winder for bobbin replenishment.

The President looms feature frames and cross rails of pearlite structure cast iron. All contact and bearing surfaces are machined.

Each shuttle box has two swells. One smaller swiveling swell at the box entrance lifts the daggers of the protector rod. On back dead center, this swell comes in line with the box back, giving this guide an exceptional length of 14 inches, the second swell braking the shuttle. On the pick, both shuttle box swells are released. This method is said to insure a perfect shuttle flight without overheating the shuttle. A new parallel picking motion, replacing the conventional shoe type, is said to give the shuttle a straight and uniform impulse.

The box-back is fastened in a fixed position, but the reed is adjustable, either at its base or top, thus avoiding a new setting of the shuttle box when putting a new reed in the loom.

A New Tenterette
Marshall & Williams Corp.

Marshall & Williams, Providence, R. I., exhibited its 150-inch tenterette with hinged rails. The unit, which operates at 125 y.p.m., was equipped with a photojet guiding edge to insure that the cloth is fed to the clips accurately. It also features differential feed which makes possible weft straightening. If the operator sees that the weft is out of line he can cause the pins on one side to operate faster or more slowly than those on the other and thereby straighten the weft.

Simpli-Folder Cloth Folder
Cocker Machine & Foundry Co.

A new cloth folder, the Simpli-Folder, was shown by Cocker Machine & Foundry Co. The unit is located after the dryer and folds the material in half, thirds, etc., as the user may demand. Concrete specifications cannot be given since the unit is custom-made for each installation. The company reports that it is much more simple in operation than competing European equipment for the same purpose.

The SL Selvage Shear
Curtis & Marble Machine Co.

The SL selvage shear which is designed to shear all types of filling yarns extending from the cloth selvage on either one or both sides was featured by Curtis & Marble Machine Co. The unit is said to be ideal for shearing the selvages of fabrics woven on the Draper shuttleless loom. It also handles sleezy fabrics such as those made of spun glass with equal accuracy and speed. Simplicity of design and advanced engineering has completely eliminated the distortion of the selvage with mechanical feelers, the company reports.

The SL selvage shear is operated by compressed air with a hydraulic cylinder and the guiding of the cloth through the six-inch cutting parts is positively controlled at all times and can be set to leave a residual fringe length of from $\frac{1}{32}$ to $\frac{1}{4}$-inch.

The unit is designed to shear from lightweight gauze to heavy denims, terry toweling and blankets. Speeds from 60 to 110 y.p.m. can be obtained, depending on the type of fabric to be sheared. It can be used as part of a cloth finishing range or operated as a separate unit with scray and rolling machine. Fabric from 14 to 120 inches wide can be sheared with single or double-unit cutting parts.

Corduroy Cutter
West Point Foundry & Machine Co.

Consistent speeds of up to 16 y.p.m. are cited for the

Considerable interest was shown in three models of the Picanol President line of looms shown by S. A. Metiers Automatiques.

Choose the ring finish that suits **YOUR** conditions

We not only provide you with the most modern ring designs, but also a variety of finishes:

MICRO FINISH This finish is indicated where nylon travelers are used, either with our exclusive Backslope design, or with other styles.

DIAMOND FINISH For spinning staple fibers on flange rings our 'DIAMOND' finish combines easy starting, smooth running and long life.

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Rely on DIAMOND FINISH 87-year experience for rings that suit your conditions, assuring easy starting, smooth running, long life.

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Model 594 corduroy cutter shown by West Point Foundry & Machine Co. The unit features separate magnetic brakes on the cloth drive and cutter shaft to assure quick stops from high cloth speed. At 15 y.p.m. the machine stops regularly with less than ¾-inch of cloth travel after an electric stop motion detects the fault. A separate motor is provided to pull seams through with cutter shaft stopped. The unit is equipped with pushbutton control for regular or creep cutting speeds. The operator's controls are located in a convenient group.

Uniqlone Loom Cleaner
American Moistening Co.

American Moistening Co. demonstrated a production model of its new vacuum Uniqlone loom cleaning arrangement. The device uses a gutter which extends the width of the loom directly under the drop wires. A gentle flow of air carries lint and size along this gutter to the opposite end where it is picked up and collected by the suction outlet. Eight weeks delivery is being promised on the unit. The company also displayed its standard AMCO ceiling mounted Heliclone loom cleaner.

Other units shown by American Moistening included the ceiling cleaner for cards and roving frames; the roving frame cleaner with single and twin air jet ports to keep the front of the frame free of lint accumulations and electronic control to prevent roving damage; the Aero-Miser atomizer; and the Amco sling psychrometer.

Loom Cleaner
American MonoRail Co.

American MonoRail showed its recently introduced loom cleaner. The unit is mounted so that the cleaner heads travel closely over the front and back of the loom. The heads send out intermittent currents of air directed at opposite angles to set up a fluttering action in the warp yarn and thereby prevent lint accumulation. The direction, speed and velocity of this sweeping action are all adjustable.

The company also had on display its vacuum type spinning frame cleaner which can travel over as many as 30 frames, eliminating floor lint and preventing accumulation on all ceiling equipment.

Also shown was the company's roving frame cleaner which has as its chief advantage the fact that when the frame stops the air toward the roving stops regardless of the position of the cleaner.

Mount Hope Machinery Co. offered a 3-D movie describing the firm's weft straightening equipment including the Skew Liner.

Draper Corp. enjoyed heavy traffic all week with its display of two shuttleless looms, one operating in slow motion.

Long Storage TravelVac
Parks-Cramer Co.

Its new long storage TravelVac was demonstrated by Parks-Cramer Co. The new TravelVac collects lint from the floor by suction and deposits it in two large screened boxes which travel above head height without interruption or interference. The screens are kept from loading up by centrifugal air currents acting continuously within the boxes. In addition, compressed air jets blow off the screens from the outside once every trip of the traveling unit. In this way the efficiency of the vacuum lint pick-up is maintained.

When the unit's collection box becomes full it is easily unloaded by stopping the unit, opening the hinged bottom and allowing the collected lint to fall into a portable box for convenient disposal. The TravelVac travels on a track above the machines it is to clean.

Other equipment displayed by the company included new traveling blowers for roving frames and overhead surfaces, a full line of traveling blowers for spinning and weaving, SpinSaVac broken-end collection, and the GraduVac humidifying system.

Slasher Break-Out Preventer
Steel Heddle Mfg. Co.

Steel Heddle Mfg. Co. had on display its new slasher break-out prevention device. The unit is designed to stop costly slasher break-outs from tangles and snarls on a wide range of warp yarns and numbers. It consists of a pivoting comb, through which the yarn passes, and an activating switch connected to the comb. When the tangle or snarl reaches the inverted comb, the comb is pivoted forward activating the switch which automatically drops the slasher into slow speed.

Yale Lift Trucks
Yale & Towne Mfg. Co.

Its compact gas-powered lift truck designed to provide the power and maneuverability necessary for heavy duty cycles in narrow aisles and cramped working areas was shown by the Yale & Towne Mfg. Co., Philadelphia, Pa. Available in capacities of 3,000, 4,000 and 5,000 pounds, the G-54 has a lifting speed of 80 f.p.m. loaded and 75 f.p.m. unloaded. Travel speed is up to 8½ m.p.h. A new inching arrangement on the unit permits flexibility of operation to suit any job requirement.

A low silhouette electric truck with smooth operation insured by a mechanically actuated carbon pile was also shown by Yale & Towne. The carbon pile, by eliminating time delays between speed changes, provides infinite speed control and high starting torque. The truck will turn within its 57-inch length. It is available in 2,000 and 3,000-pound capacities. Lifting speed is up to 150 f.p.m.

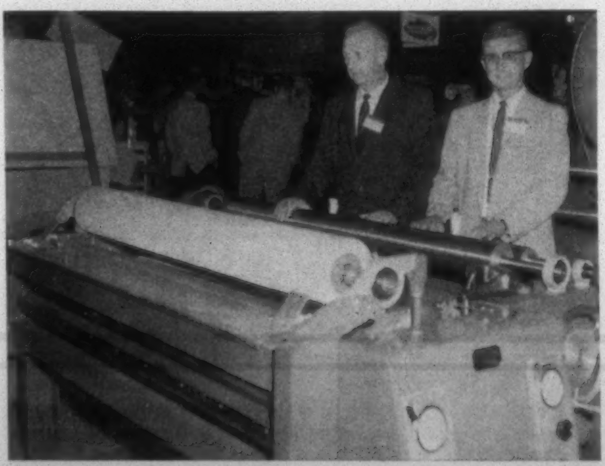
Yale & Towne's Extend-A-Load warehouser is designed to provide more warehouse handling versatility. The unit features maneuverability, operator comfort and visibility. It employs a special extending device which moves loads forward and back in pick-up placement. The extending unit has been designed to allow the scissors-action mechanism to move parallel to the floor and fold back almost within the mast of the truck.

Baker Lift Trucks
Baker Mfg. Co.

Several models of its lift trucks were demonstrated by Baker Mfg. Co., Greenville. Among them was the FGD-030 gas-powered lift truck of 3,000-lb. capacity. The heavy-duty, cashion-tire unit has standard full capacity lifts to 144 inches with higher lifts available. Capacities for the line range to 6,000 pounds.

Model FTD-020 electric lift truck was also shown by Baker. This line of trucks has better visibility due to the absence of cowl. The unit features hydraulic wheel brakes, and an independent seat-controlled parking brake. It has standard full-capacity lifts to 144 inches.

The Model TEL-EF Moto-Truc is a "walkie" pallet truck with telescoping mast for selecting from tiered bins and pallet racks. The electric-powered unit is available in two



West Point Foundry & Machine Co. exhibited a new size box, a corduroy cutting machine, and a new size pump in its booth.

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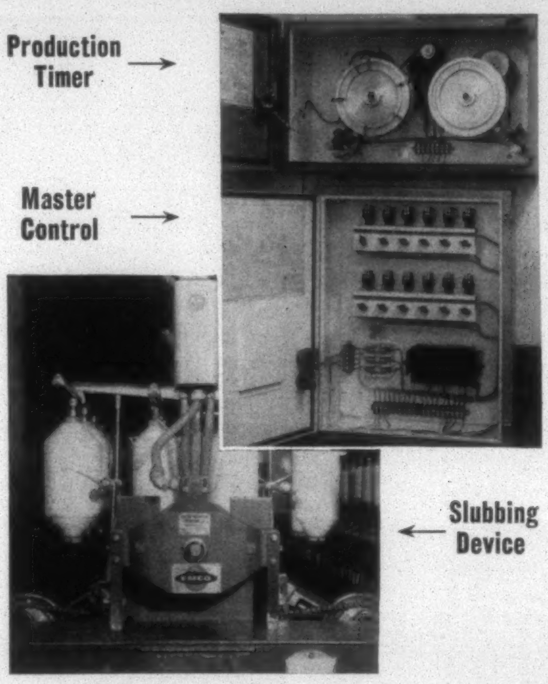

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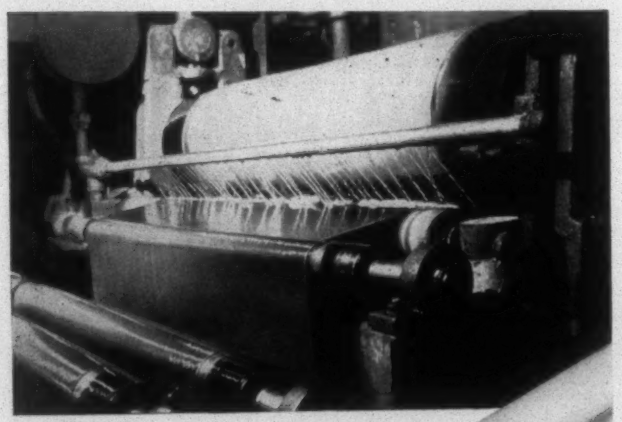

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models—4,000 and 6,000 pounds. Travel speed 2½ m.p.h. loaded and 3½ m.p.h. unloaded.

Hyster Trucks
Wrenn Bros.

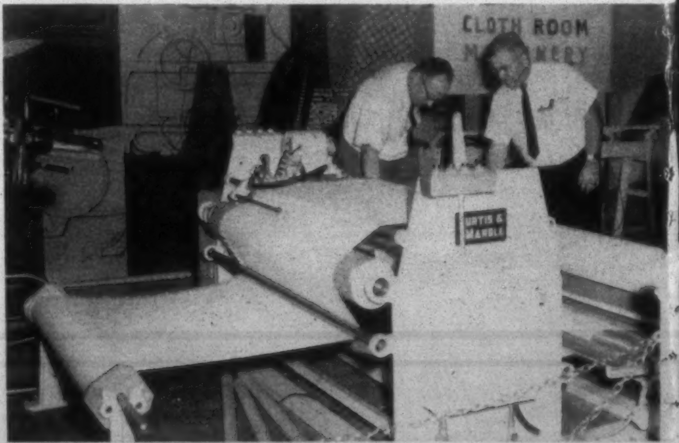
Wrenn Bros. of Charlotte demonstrated several materials handling units including a Hyster truck equipped with the Perry Hook. The Perry Hook is an attachment designed for handling bales of cotton. It consists of two hydraulically operated arms located one above the other. The top arm is a long hinged affair with a hook on the end. The lower arm is a piston type of arm operating horizontally. In operation the truck moves up to one end of a cotton bale. The long top arm drops down with the hook entering the bale. The piston type lower arm is moved out against the end of the bale forcing it tightly against the hook of the upper arm. Since there is no arm under the bale, it can be moved and stacked easily.

Adamsignal For Ring Frames
Adams Inc.

Adams Inc., Greenville, S. C., displayed its Adamsignal for ring frames and Adamstop for roving frames. The Adamsignal reports thread breaks automatically by means of an electrical reaction to a sharp reduction in traveler speed. When sufficient breaks have occurred to warrant attention, a signal light is flashed directing the operator to the trouble spot. Optional equipment is available to stop the flow of material. The added protection minimizes waste, contamination to adjacent strands and damage to rolls and aprons.

Textile Lift Trucks
Allis-Chalmers Mfg. Co.

Allis-Chalmers Mfg. Co. had on display a lift truck featuring a metal cover underneath to reduce accumulation in the engine area when operating in heavy lint conditions. This also reduces radiator clogging from the suction of the fan. The engine has ample filters to keep it clean even in the cotton warehouse. Three masts may be optionally specified for the lift truck depending on the stacking height and minimum height requirements. The unit can also be equipped with either forks or bale clamps.



Curtis & Marble Machine Co. had on display its SL selvage shear which is designed to shear from lightweight gauze to heavy denims, terry toweling and blankets.

Short-Term Fluctuations *Can* Be Minimized

THESE TROUBLESOME CYCLES CAN BE MINIMIZED BY A UNIFIED INDUSTRY, THE AUTHOR MAINTAINS

By **WILLIAM H. MIERNYK***

THE textile cycle has been the object of considerable study in recent years. And because more and better data are available on cotton cloth than on other fabrics, we have been able to learn more about fluctuations in this than in other branches of the textile industry.

Cyclical variations in the production of cotton textiles are far more regular than those found in many other industries. Fluctuations in the demand for various kinds of durable goods, for example, tend to follow the broad movements of prosperity and recession generally referred to as the "business cycle." But the textile cycle tends to move more or less independently of these broader movements. In part, this is due to the structure of the textile industry, and the type of market in which its products are sold.

Few industries in this country are as aggressively price competitive as textiles. Because of the competitive pressures which extend from the retail market back to the mill, profit margins are small. Even relatively small variations in price can wipe out a mill's profits in a given season. Thus mills operate in the face of almost constant uncertainty. Unlike a number of other industries—such as autos, steel and rubber—where a few large sellers account for most of the industry's output, textile mill managements have been unable to "administer" their prices in an effort to maintain profits in the face of cyclical declines in production[1].

Given the present structure of the textile industry, the type of market in which it sells, knowledge of the market at any given time (which depends upon currently available statistics), and the ever-vigilant Anti-Trust Division of the Department of Justice, mill managements expand production when prices are rising, and curtail production when prices fall.

The management of each mill must judge independently when to expand and when to contract. These decisions are not always easy to make. There are many "false turns" both upward and downward, between the clearly marked peak and trough of a single cycle. And the decision to expand or curtail production cannot be made lightly. To cut back production may mean laying off part of the work force—with the almost certain knowledge that many of the workers will drift to other jobs before they can be recalled. Thus when the mill expands production again some new workers must be hired, and there may be a considerable time lag before the new employees reach their peak efficiency.

Many mill managements—including a number of industry leaders—have recognized the damaging effects of short-term swings in textile production. They have publicly stated the need for self-restraint when market conditions improve lest the rush to capitalize on rising prices lead to overproduction and an evitable downturn. But others have been unwilling to heed these warnings. They have expanded production to capacity levels whenever market conditions have warranted this, and thus have hastened the day when the market could no longer absorb the industry's total output. An individual mill might profit from such behavior if it can achieve sufficiently high returns during the upswing of the cycle to offset lower returns (including higher overhead costs per unit of output) during the downswing. But the industry as a whole cannot. Its over-all efficiency and profitability are adversely affected by each cyclical decline.

One of the most important variables—perhaps the critical variable—in the textile cycle is the level of inventories. Because of the complexity of the textile production and marketing process, it is essential that some inventories be held. But if wide swings in the level of inventories could be reduced, fluctuations in textile production and employment would be minimized. This in turn would reduce uncertainty about the short-term future of the textile industry, and the over-all efficiency (and thus profitability) of the industry would be improved.

The Rise Of Management Science

Until fairly recent times, far too many decisions made by industrial management were of the "seat of the pants" variety. This is another way of saying that management relied almost entirely upon judgement in making its decisions. Since the end of World War II, however, a number of new techniques have been developed to aid management in its decision-making processes. These are not substitutes for judgement, and they provide no pushbutton methods of solving difficult business problems. But they do provide ways for management to evaluate masses of data—summarized in an appropriate fashion—which certainly lead to better decision-making. They are analytical *tools*, but they are sharp tools indeed.

Most of these techniques fall under the heading of "operations research," as this area of business analysis is called by some practitioners, or of "management science" as it is called by others. They employ rather advanced mathematics, and are tied closely to computer technology. But they go far beyond the pedestrian "data processing" practiced by many firms. Some of these techniques are in their infancy, but others have already been developed to the point where they are operational.

Industrial Dynamics

One of the new methods of analysis which is particularly applicable to the short-term problems of the textile industry is called "industrial dynamics." Much of the pioneer-

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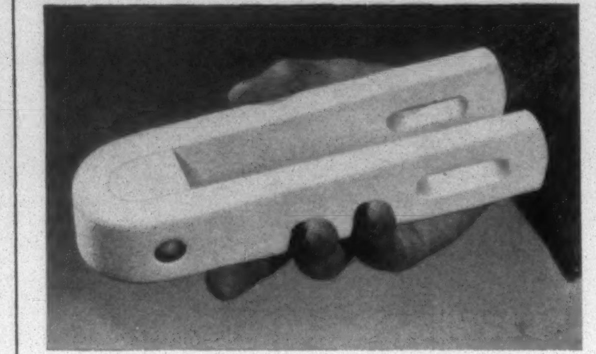
*Director of the Bureau of Business and Economic Research, Northeastern University. Presented at the 106th annual meeting of the Northern Textile Association, September 28-29, Portsmouth, N. H.

[1] It should not be assumed, as is often done, that the industries mentioned or others which operate in "oligopolistic" markets, are engaged in collusion when they administer prices. Where a few large sellers dominate a market, each can study the reaction of its rivals to changes in prices, product design, etc. Over time, patterns of behavior will emerge which lead to price stability without the necessity of collusion.

HARRIS HEAVY DUTY LUG STRAPS AND HOLD UPS



All Canvas Lug Straps and Lug Strap Hold Ups are made of the best quality materials we can buy, put together with the best workmanship. Lug Straps are available with or without plugs in 1" increments from 8 to 18 inch lengths and in 1½ and 2 inch widths. Partial or full leather lining available to suit requirements.

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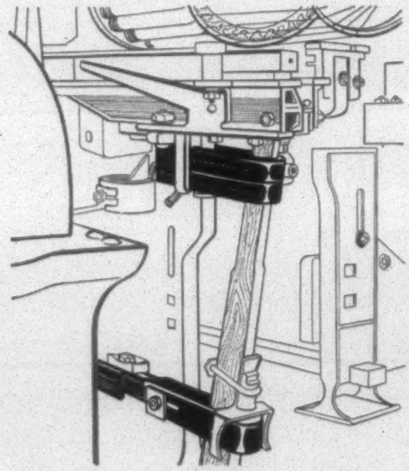

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ing work in this field has been done by Professor Jay Forrester of the School of Industrial Management at M.I.T. His basic ideas have been conveniently summarized in an article entitled "Industrial Dynamics," which appeared in the July-August 1958 issue of the *Harvard Business Review*. This article is strongly recommended to anyone interested in inventory control at the level of the individual firm.

We have just completed for the Department of Commerce a study called "The Role of Inventories in the Textile Cycle" in the Bureau of Business and Economic Research at Northeastern University. This study can be classified under the general heading of industrial dynamics, although our investigation of the problem followed an original approach. It is our hope that, once it is published, this study will lead to better understanding of the textile cycle, and of the extent to which variations in inventories lead to fluctuations in prices, production and employment. It is possible that studies of this sort which seek to identify the causes of the textile cycle—and to point out its consequences to the industry—will lend support to those industry leaders who have urged greater self-discipline as a means of control of the cycle during periods of expansion.

It would be impossible in the time at my disposal to adequately summarize the full report of our investigation. What I propose to do here is to list the stages involved in tackling such a business problem, indicate the present state of our knowledge about each of these stages, and suggest further steps that could be taken to aid management in its efforts to minimize the cyclical swings which have plagued the cotton textile industry throughout virtually its entire history. There are five such stages involved: (1) understanding of the problem, and measurement of its magnitude; (2) development of a "model" to summarize, in abstract form, all of the interrelationships involved, and to reduce the problem to manageable proportions; (3) statistical analysis of available data; (4) filling data gaps; and (5) implementation of findings to assist management in short-term planning.

Approaching The Problems Of Inventories And The Textile Cycle

Stage One: Understanding And Measurement Of The Problem

The first step in analyzing any business problem is to get it down on paper. In the case of the textile cycle, this means plotting all relevant time series. After appropriate smoothing, averaging and other manipulation of data, it is possible to make reasonably accurate measurements of the average duration, and average amplitude of cyclical swings. This stage is pretty well advanced. Two recent studies, one by Thomas Jeff Davis, of the Department of Commerce, and the other by T. M. Stanback Jr., of the National Bureau of Economic Research, have confirmed statistically what many of us have known for a long time: namely, that there have been fairly regular, and relatively short, swings in cotton textile production, prices and employment.

Fairly good data are available on cotton textile production, prices, employment, inventories and unfilled orders. Thus in this branch of the industry we already know much about short-term or cyclical swings. Our understanding of the cotton-textile cycle would be improved, of course, if we had more and better data. But further study designed to simply describe and measure the cotton-textile cycle would lead us to no new conclusions unless it were based upon data which have not been available to us up to now.

Stage Two: The Development Of A Model

By a "model" of the textile industry we simply mean an abstract representation of all interrelationships involved in the production and marketing of its products. Such models are usually expressed in mathematical language. This has the disadvantage of being understandable only to those with a certain amount of technical training in economics and statistics. But it has the great advantage of reducing to managable form all of the complex interrelationships in the industry. This must be done—in one way or another—if we are to discover how the behavior of individuals at each step of this process affects the industry as a whole. We have developed such a model which will be published in the report to be issued by the Department of Commerce. Here I can only sketch briefly some of the basic steps involved in the construction of the model.

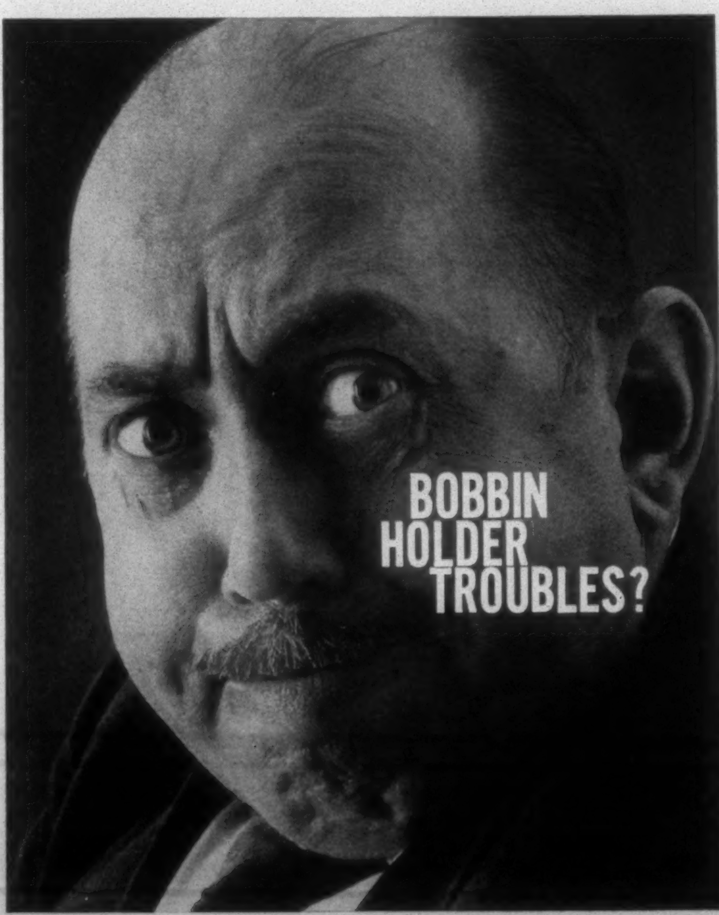
When we study the relationships among various textile time series, we observe that relatively small percentage changes in orders at the level of the retailer or cutter are magnified as they move back through the marketing and distributing channels to the mill. This is because it takes time to transmit orders through the complex chain involved. And since orders must be satisfied shortly after they are placed, somewhere along the line stocks of cloth must be held ready for fairly rapid finishing and shipment. Thus converters must keep stocks of greige goods which can be finished and delivered within the time allowed.

The converter, by the nature of his operation, is a speculator. It must be emphasized that this term has no derogatory connotation. The converter performs the very useful and necessary function of smoothing out short-term fluctuations due to seasonal and similar factors. In the absence of the converter, the textile cycle would be far more volatile than it is, and there would be even greater day-to-day uncertainty at the level of the mill. But by the nature of his operation, the converter tries to "ride out" the textile cycle in such a way as to profit from cyclical variations in prices and production. Thus so long as the cotton-textile market is not radically altered we should expect continued short-term fluctuations.

It would be possible—and from the point of view of mill managements, highly desirable—to keep fluctuations in prices and production within fairly narrow limits, however. As a result of our study, we feel that this could be done if all the relevant data were available, and if most mill managements would utilize these data to their best advantage in planning production schedules, and in making other routine decisions.

In developing a model of the textile cycle, these relationships (as well as all others involved in the chain which extends from the mill to ultimate customers) are expressed in terms of equations. By substituting data in the equations, we are able to observe how variations in demand at different levels ultimately react upon the level of production at the mill. We can also see how changes in the behavior of consumers, cutters or converters affect the future course of the textile cycle.

Relatively little work has been done at this level of



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analysis. We have made a beginning at Northeastern, and we hope to do more in the future. Before this work can progress much further, however, we need more and better data than are now available particularly on textile inventories.

Stage Three: Statistical Analysis Of The Data

Once the data on cotton textile production, prices, employment, inventories and unfilled orders have been charted, smoothed and otherwise manipulated, the next step is to find out how these data relate to one another. This involves, among other things, the discovery of leads and lags. Which series turn up or turn down ahead of others? How closely are these series correlated with one another, before and after adjusting for leads and lags? Are there any series which consistently lead in such a way that they could be employed as "leading indicators"?

These are among the questions asked at this stage of analysis. To date, there has been relatively little investigation of this kind even of the available data. One of my colleagues at Northeastern and I hope to make such a study shortly. If successful, it should lead to improved forecasting of the cotton-textile cycle.

At this stage of the analysis we use the various statistics developed — such as the ratio of inventories to unfilled orders, estimates of demand, and the lead and lag relationships—to test the model developed in the prior stage. This will show whether or not the model has predictive value. If it does not, the empirical data will often suggest modifications which lead to the development of an improved model.

Stage Four: Data Deficiencies

We have much better data for cotton textiles than for any other segment of the textile industry. But the industry could use much better data; particularly on inventories which are the critical variable in the cotton-textile cycle. Inventory data currently gathered are based on sample surveys, and in their present form do not reveal the ownership of stocks of cloth. The physical location of inventories is not important, but good, up-to-date information on the volume of inventories owned by retailers, cutters, converters and mills would fill the most important data gap remaining in the cotton textile industry. We should, of course, continue to seek improved data on prices and unfilled orders as well. But the critical need is for reliable and timely inventory data. To avoid misunderstanding, this is not a suggestion that ownership of inventories be reported by company. This is properly confidential information and should remain so. What should be reported is the *aggregate* inventories owned at each level from mills to retailers.

The Bureau of the Census is currently working on a program which they hope will lead to improved inventory statistics for the textile industry group. As I understand it, however, they will try to report inventory data by location rather than by ownership. It is possible that this is as far as they can go at the present time. But in its own self interest, the cotton textile industry should press for the collection and rapid reporting of inventories on the basis of ownership so that mill managements, and others throughout the industry, can make better short-term forecasts which would lead to improved production scheduling over the textile cycle.

Stage Five: Management Policies To Minimize Cyclical Swings

The final, and the most difficult, step in the solution of this particular business problem involves the policies which have been followed by some firms in the cotton textile industry. As noted earlier, a number of industry leaders have urged industrywide restraint in expanding production during the upswing of the cycle. But others in the industry have failed to follow this lead. If cyclical swings in production and prices are to be held to a minimum, however, it is essential that all units in the industry co-operate to gear production levels to reasonable estimates of future demand. This is not to suggest that firms in the industry engage in collusion, or in any way violate existing antitrust laws. Nothing of the sort would be necessary to achieve workable control of the textile cycle. Industrywide co-operation, however, will be required. If enough mills move to the six-day work week, and capacity production, during each upswing, others in the industry are forced to follow. Once this happens it is safe to predict a relatively early downturn.

It is worth noting that managements which have failed to practice restraint when market conditions are improving have nevertheless been in agreement with those who urge limitations on imports. One must recognize, of course, that all textile management is concerned about the long-term future of the industry. Faced by the loss of export markets, and the sharp jump in imports, the textile industry has reacted by seeking government aid in controlling the flow of fabric into this country. This reaction is common to all industries which have been faced with the problem of rising imports. To management in these industries, and their workers, the threat of imports is both real and urgent. But "protectionism" is not popular with the public at large.

The argument is often advanced that if domestic industries were more "efficient" they would not need to fear foreign competition. This argument is typically based on ignorance of the facts, and upon grossly over-simplified economic theories which have little relevance to the world of today. The public's unfavorable attitude toward the control of textile imports, for example, is based in part upon widespread misconceptions about the textile industry. Rapid technological developments which have led to above-average gains in productivity are not widely recognized. If the textile industry hopes to broaden the base of support for some regulation of international trade, it must demonstrate that it is trying to operate at peak efficiency. One step in this direction would be industrywide self-control of inventory accumulation which would dampen fluctuations in production, prices and employment.

Conclusion

The problem to be stressed, in conclusion, is that while recognizing the deep concern throughout the industry with its long-term problems, one can argue that much can be done to minimize short-term fluctuations which cause chronic uncertainty, periodic unemployment and unnecessary losses throughout the industry. The industry is unified in its stand on the solution to its long-term problems. It should be equally unified in its stand on short-term problems. Both problems can and should be faced simultaneously.

N. C. Textile Manufacturers Association Holds Annual Meeting At Pinehurst, N. C.

MEETING in annual session September 28-30 at Pinehurst, the North Carolina Textile Manufacturers Association learned from North Carolina State College Chancellor John T. Caldwell that research contracts totaling some $482,966 are now active with the college's School of Textiles, and that total enrollment for the school was up 25% from the previous semester.

The North Carolina Textile Foundation, he reported, had contributed more than $59,000 to the work of the school in the last fiscal year, bringing to more than $1,337,000 the amount contributed by the foundation since its organization in 1942. Nearly $1 million of that has gone toward improving the level of quality in facilities and faculty. The school, he said, has never been in better shape to produce "the kind of graduates you want and the kind of advances in knowledge and techniques to improve efficiency."

In his remarks as retiring president, J. C. Cowan Jr., vice-chairman of the board of Burlington Industries, called 1960 one of the best years in the association's 54-year history. "Our association," he said, "is making excellent progress, and the incoming leadership will expand its effectiveness as a service organization to the textile industry in North Carolina."

Succeeding Cowan as president is Donald R. Jonas of Charlotte, executive vice-president of Johnston Mills Co. A native of Lincolnton, N. C., Jonas graduated from the University of North Carolina in 1927. He joined Johnston in 1935, was elected a vice-president in 1947, and named executive vice-president in 1950.

He is also secretary of Union Mills Co., Monroe; vice-president of Spinners Processing Co., Spindale; and a director of Park Yarn Mills Co., Kings Mountain, and Eastern Mfg. Co., Selma. He is a past president of the Combed Yarn Spinners Association and the Durene Association of America. A brother, Charles R. Jonas, is congressman for North Carolina's tenth district.

Elected to three-year terms as directors for the association were Don S. Holt, Cannon Mills Co., Kannapolis; Jesse A. White, J. P. Stevens & Co., Greensboro; and William H. Barnhardt, Southern Webbing Co., Charlotte. Directors re-elected were Thomas R. Borland, Carlton Yarn Mills, Salisbury; Marshall Y. Cooper, Harriet-Henderson Cotton Mills, Henderson; and Harold W. Whitcomb, Fieldcrest Mills, Spray.

LaFar, Jonas, Little, Ingram, Cowan, Barnhardt

JONAS SUCCEEDS COWAN—Donald R. Jonas of Charlotte, vice-president of Johnston Mills Co., succeeds J. C. Cowan Jr. of Greensboro, vice-chairman of the board, Burlington Industries, as president of the North Carolina Textile Manufacturers Association. Other officers include D. R. LaFar Jr. of LaFar Mills, Gastonia, first vice-president; Hal A. Little, Little Mfg. Co., Wadesboro, N. C., second vice-president; Tom Ingram of Charlotte, N.C.T.M.A.'s executive vice-president; and William H. Barnhardt of Southern Webbing Co., Charlotte, president of the North Carolina Textile Foundation.

The Loomfixer And His Job Part Twenty-Three

CLOSE ATTENTION TO THE STAFFORD THREAD CUTTER WILL DO MUCH TO INSURE FIRST-QUALITY CLOTH

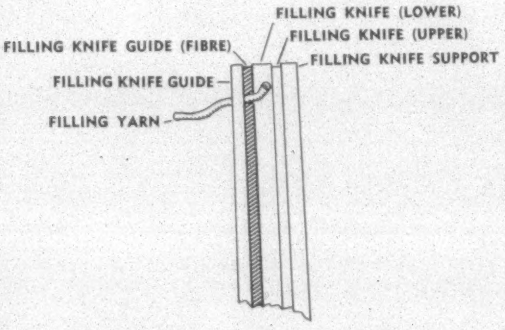
By WILMER WESTBROOK

THE thread cutter performs the necessary function of cutting the thread of an ejected bobbin and pulling it out of the way of moving loom parts. Without this action, an extra end of filling yarn would be woven into the cloth to form a noticeable defect.

There are several types of thread cutters in use on Draper looms. This article will deal only with the Stafford thread cutter, the most commonly used type.

Since the thread cutter is activated by the shuttle feeler, always have this mechanism correctly set before adjusting the cutter.

With all the thread cutter parts assembled on the loom, set the cutter bracket so that the blades enter the slot in the front box and the shuttle with allowance made for a slight rebound of the shuttle. Set the knife so that the open jaws will be central with the filling end as it is held in the filling groove of the shuttle.

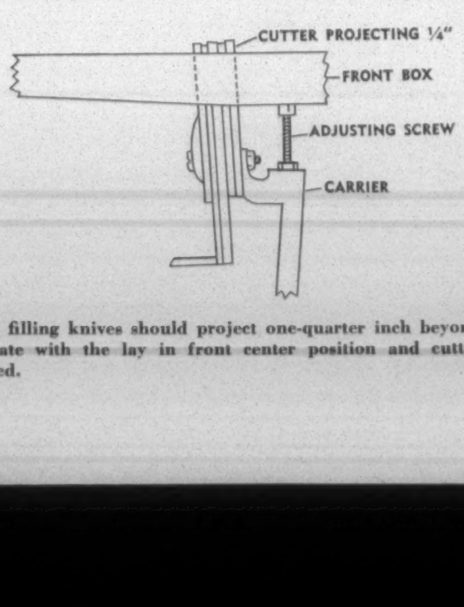


The end of filling should be cut cleanly and held securely when an exhausted bobbin is ejected.

Set the adjusting screw in the knife carrier bracket against the front box so that the end of the knife will project ¼-inch through the front box plate.

Move the lay forward until the bunter is ⅛-inch from the raised latch. Push the knife stop against the front box plate and tighten all parts.

Pull the lay forward and cause the latch to pass under the bunter as it would on a revoked transfer. There should be at least ¼-inch clearance between the stop screw and the front box plate as the knife is closed to prevent a cut thread in the event the bobbin is not ejected.



End of filling knives should project one-quarter inch beyond front box plate with the lay in front center position and cutter fully extended.

Turn the loom slowly by hand and see that all parts of the cutter work freely without binding. The knife should be loose enough to be opened and closed easily but should also be tight enough to hold the cut end securely.

Use oil sparingly on the working parts of the thread cutter and don't get any oil or grease on the blades or guide.

Dull thread cutter knives can be sharpened by removing them from the carrier and touching them lightly to a fine-grained emery wheel or grindstone. Hold the blade so that the wheel contacts the cutting edge at the exact angle of the original edge and have the wheel revolving away from the cutting edge so that no burrs will be formed on it.

The knives can also be sharpened by rubbing the cutting edge over a piece of emery cloth laid flat on a smooth surface such as a work bench top. Both upper and lower knives can be sharpened.

Sometimes it is hard to get the correct holding tension without getting the cutter parts too tight for easy opening and closing. This condition can be corrected by placing the filling knife guide in a vise and, by tapping it lightly with a hammer, bending it enough to exert pressure on the knives and guide.

If the filling knife guide becomes worn or is coated with oil and doesn't hold the thread securely, it can be cleaned and buffed with emery cloth. Place the cloth on a flat surface and rub the contact face of the guide over it, exerting enough pressure to cut a new face on the guide.

Before the assembled thread cutter is put back in the loom, cause it to cut a thread held by hand. If the thread is severed cleanly and the cutter can be suspended by the held end of the thread without the thread pulling out, the cutter can be considered as correctly adjusted.

If the thread cutter operates correctly and the thread is not cut or held, check the following for cause: (1) shuttle bouncing; (2) shuttle rising in the box; (3) filling groove in the shuttle too shallow; (4) picker too high or too low; (5) not enough tensioning material in the shuttle; (6) filling thread not entering the shuttle eye; (7) bobbin crooked in the shuttle; (8) shuttle feeler improperly set; (9) picking motion out of time; or (10) filling thread hanging on the box, picker, filling fork, or other object.

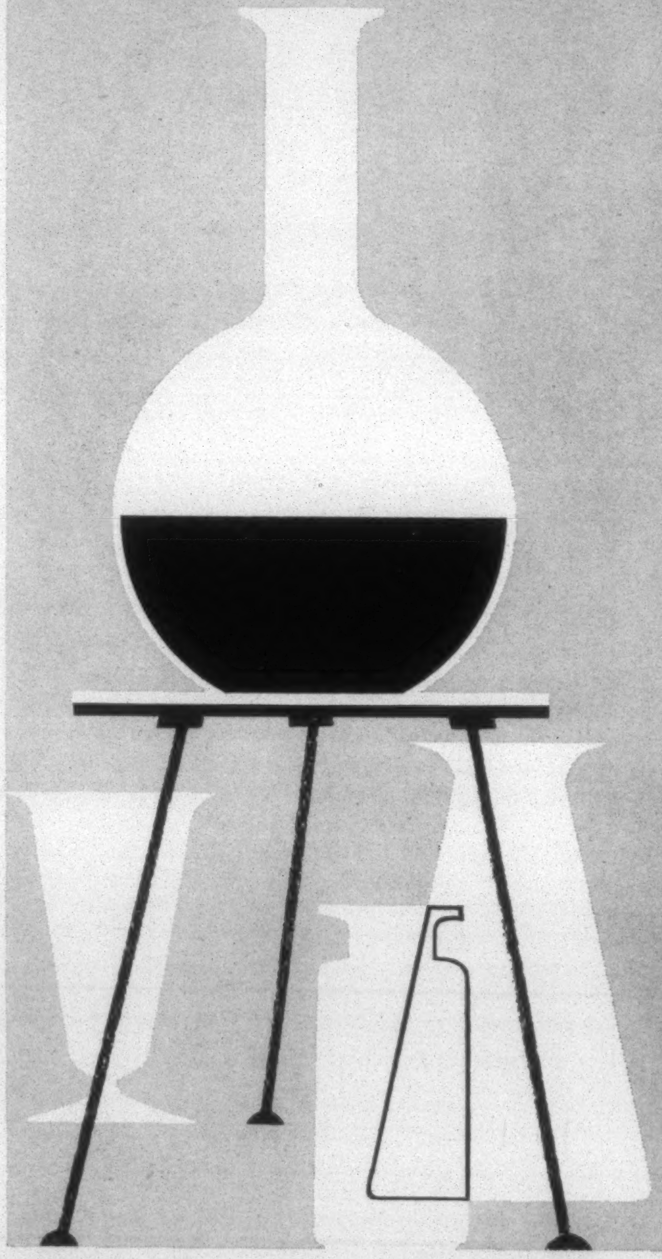
To check the action of the Stafford thread cutter, cause the loom to change filling several times, watching the action of the cutter as the filling is transferred.

Always look at the thread cutter when inspecting cloth or passing down the weave aisle. If there is a single strand of filling hanging from the cutter, with the severed end sticking up above the knife, it indicates a cutter in good working order.

However, if there is a group of threads in the cutter or the ends are hanging from both sides of the cutter its action should be checked.

Glytex CMC

by KEEVER



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Spray Printing: New Method To Apply Patterns

THE GOODRICH PROCESS USES PRODUCTION-LINE METHODS WITHOUT THE EXPENSE OF CONVENTIONAL PRINTING

A NEW technique for applying patterns and textures to a wide range of fabrics by production-line methods—but without the expense of conventional printing—was demonstrated recently at North Carolina State College's School of Textiles, Raleigh.

The process, developed by B. F. Goodrich Chemical Co., Cleveland, Ohio, was demonstrated on production-scale spraying equipment donated to the School of Textiles by Binks Mfg. Co., Chicago.

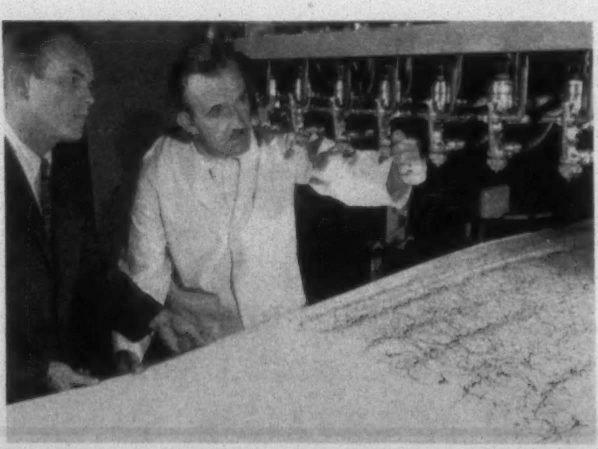
In the process, liquid vinyl plastic is sprayed on textiles in abstract swirls, random line or spatter designs. On heating in an oven, the vinyl fuses to the fabric in permanent patterns or textures that withstand washing and dry cleaning. The fabric's hand remains practically unaltered.

Lawrence L. Shailer, manager of textile chemicals sales development for BFG Chemical, commenting on the new process said, "This decorative spray technique offers a unique opportunity to designers and manufacturers. A great variety of fabrics from wovens to nonwovens to knitted materials, tight or loose construction, may be decorated by this method. Patterns and colors are practically unlimited."

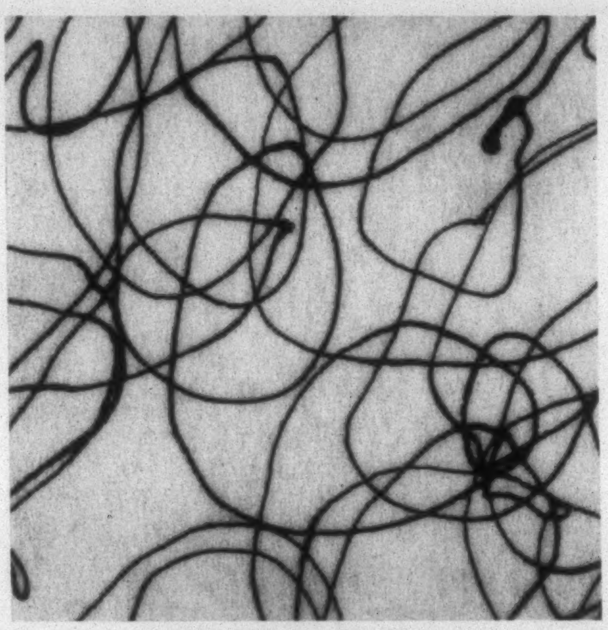
Fabrics prepared in this manner are now being considered for use in automobile interior trim, draperies and curtains, upholstery and slipcover materials, tickings, outerwear fabrics, lingerie, robes, gloves, spreads, lampshade fabrics and wall coverings, Shailer said.

Introduced A Year Ago

Goodrich first introduced the decorative spraying technique at its textile chemicals trade show in New York a year ago. The installation at N. C. State is the result of the co-operative efforts of BFG Chemical, Binks Mfg. Co. and the college to demonstrate the commercial feasibility of the new decorative spraying technique. The equipment provides pilot facilities which will enable individual companies to prepare yardage for test marketing, for evaluating design variations and for studying costs in a practical manner.



The abstract swirl shown here, spatter designs or random effects, are possible with the new technique developed by B. F. Goodrich Chemical Co. The firm, represented by Howard M. Sprock Jr. *(left)*, representative for sales development in textile chemicals, supplies the raw materials for the plastisols used with the spray equipment. Engineer William B. Crawford of Binks Mfg. Co. is adjusting one of the nozzles of the spray equipment manufactured by his company.



Veiling effect on nonwoven fabric.

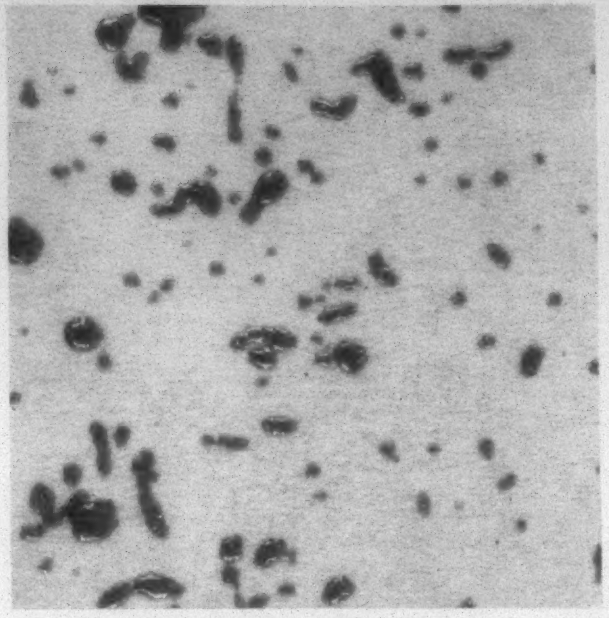
In discussing BFG Chemical's development of the new technique, Shailer pointed out that his firm supplies only the raw materials used in the process. Plastisols (vinyl plastic in the form of liquid dispersion) used in the demonstration were prepared by Flexible Products Co., Marietta, Ga., using Geon vinyl materials supplied by BFG Chemical. Flexible Products has been prominent among formulators offering plastisols suitable for use with the new technique.

Varied Patterns Possible

With the Binks equipment installed at the college, patterns may be varied by adjusting the spray guns, altering the flow properties of the plastisol, and by changing the number of spray heads, their position or the speed of the material through the equipment. Speeds up to 25 yards a minute were demonstrated, but much higher speeds can be attained if simple patterns are used and adequate oven capacity is available.

Patterns may also be varied by using equipment with moving guns. Such equipment might have the guns moving on a traversing unit or mounted on an oscillating frame.

Vinyl or nitrile latex may be used in place of vinyl plastisols in the spraying operation. This is usually done when heat-sensitive fibers are being sprayed since latices can be cured at lower temperatures. When latices are used,



Spatter effect on nonwoven fabric.

they are simply dried and then heat cured usually at temperatures below 300° F.

Low Cost Technique

The advantages of vinyl plastisols as cited by Goodrich include their low cost, wide color range, excellent aging properties and washfastness. Plastisols may also provide three-dimensional or raised patterns that are attractive to many designers. Wear resistance is substantially improved where three-dimensional patterns are used.

Latices, it was pointed out, also display excellent durability but are more costly and their compounding is more complex. In addition it is difficult to achieve three-dimensional patterns when latices are used.

Either hand or automatic spray guns equipped with decorator heads may be used for decorative spraying. The amount of material used varies with the design and averages 0.5 to 1 ounce per square yard of fabric. Usually the decorative spray technique can be integrated into existing printing and finishing operations without difficulty.

The sample unit at N. C. State consists of a bank of automatic air operated spray guns for coating the complete fabric width on a continuous basis; fluid, atomization and control air manifolds; hose; air controls and air operated fluid pump.

The spray guns are actuated by a manual three-way valve. For ease in changing colors, the pump is equipped with an air operated elevator so that it can be raised from one color container and lowered into another. Provisions are also made to raise and lower the entire bank of guns to add additional versatility in obtaining various spray effects.

The entire spray installation is located at the entrance to a tenter frame. Mounting direct to the frame is not recommended because of the possibility of contaminating the chain with the spray material. Only modification necessary for the installation at N. C. State was a hook-up to the school's compressed air system to provide atomizing and control air for the spray guns, and provisions for a minimum 350° F. curing temperature in the frame.

Materials

Compounds for decorative spraying can be prepared to yield variations in the texture of the coating. Almost any color may be obtained. The best recipe for a given product will depend on the texture, color and fastness required. The heating capacity available and temperature limitations of the substrate will also affect the choice of compound. Because veiling compounds require a stringy consistency, a small quantity of a high-styrene resin, Good-rite 2007, is quite frequently used as an additive to vinyl plastic (plastisol) compounds. To impart stringiness to latex compounds, a combination of CMC and Cyanamer P-250 does a comparable job. For spattering, compounds with "short" consistency are recommended. Simple plastisol compounds spatter well. For latex compounds, CMC alone should be used to adjust flow properties for spatter effects.

The following recipes illustrate the compositions of typical formulations. The varying merits of these different systems follow also:

(A) Vinyl Plastisols
  (1) Advantages
    (a) Low cost.
    (b) Wide color range.
    (c) Excellent aging properties.
    (d) Three-dimensional or raised patterns are readily achieved.
    (e) Little danger of spray guns fouling.
    (f) Excellent washfastness.
  (2) Disadvantages
    (a) Minimum fusion temperature of 300 to 350° is high for many fabrics.
    (b) Need for care in pressing operations.

Table I
Typical Vinyl Plastisol Formulations

Pattern Type Color	A Veil Red Parts	B Spatter Aluminum Parts	Source
Geon 121	100.0	100.0	B. F. Goodrich
Good-rite 2007	1.0	. . . .	B. F. Goodrich
Good-rite GP-261	75.0	75.0	B. F. Goodrich
Paraplex G-62	5.0	. . . .	Rohn & Haas
Monoplex S-73	. . . .	5.0	Rohn & Haas
Stabilizer 12-V-6	3.0	. . . .	Harshaw Chemical
Stabilizer 12-V-66B	. . . .	3.0	Harshaw Chemical
Santocel C*	. . . .	5.0	Monsanto Chemical
TiO_2*	2.4	. . . .	Du Pont
Ricon Red	0.44	. . . .	Harmon Color Sales, Allied Chemical Corp.
Aluminum Pigment	. . . .	3.0	Metals Disintegrating Co.

*Added as a paste predispersed in plasticizer.

(B) Nitrile Latices
  (1) Advantages
    (a) May be cured below 300° F.
    (b) Proven use in fabric pigment printing systems.
    (c) Excellent durability-washfast and dry-cleanable.
  (2) Disadvantages
    (a) Higher cost.
    (b) Cannot achieve three-dimensional or raised patterns.
    (c) Compounding is more complex.
    (d) Spray system must be thoroughly cleaned when shut down—more gun fouling.

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KLUTTZ RINGS, Inc.
Gastonia, North Carolina

Table II
Typical Nitrile Latex Formulations

Pattern Type Color	A Spatter Black (Parts)	B Veil Green (Parts)	Source
Hycar 1572	100.0	100.0	B. F. Goodrich
CMC 12-H	1.5	1.5	Hercules Chemical
Cyanamer P-250	. . . .	0.75	American Cyanamid
Ludox	10.0	. . . .	Du Pont
TiO_2	. . . .	4.0	Du Pont
Aquablak-k	3.0	. . . .	Columbia Carbon
Green pigment	. . . .	1.5	Bennett's Decorator Colors
Ahcovel R	. . . .	5.0	Arnold Hoffman
Igepal CO-880	. . . .	2.0	General Aniline & Film

*Dry weight basis.

(C) Vinyl Latices (e.g. Geon 652, 450x167, etc.)

- (1) Advantages
  - (a) Requires only simple drying—permits use with heat sensitive fabrics.
  - (b) Relatively low cost.
- (2) Disadvantages
  - (a) Cannot achieve three-dimensional or raised patterns.
  - (b) Compounding is more complex.
  - (c) Spray system must be thoroughly cleaned when shut down—more gun fouling.

Table III
Typical Vinyl Latex Formulation*

Pattern Type Color	A Veil White (Parts)	Source
Geon 450x167	100.0	B. F. Goodrich
CMC 12-H	1.5	Hercules Chemical
Cyanamer P-250**	0.75	American Cyanamid
Atomite	10.0	Thompson, Weinman & Co.
$Ti0_2$	10.0	Du Pont

*Dry weight basis.
**A spatter compound will result if the Cyanamer P-250 is omitted.

Three of the men involved in the installation of equipment at the North Carolina State College School of Textiles are *(from left)* George Knetl, assistant chief engineer for Binks Mfg. Co., Chicago; Prof. Kenneth S. Campbell of The School of Textiles; and Lawrence L. Shailer, manager of textile chemicals sales development for B. F. Goodrich Chemical Co.

Advantages Of Using Gas-Fired Equipment In The Finishing And Drying Of Textiles

By B. R. ANDREWS*

WHEN gas became available to textile finishing plants as a source of heat for processing, its cost was found to compare favorably with coal or oil, even though the fuel price per BTU was higher. This is true because:

(1) There are no stand-by losses of heat when a gas-fired unit is shut down as there are when steam is used and long runs of steam pipes and condensate returns remain hot, or perhaps steam is left on in the unit all the time.

(2) The investment in gas mains, regulating valves, etc., is only a small fraction of the cost of a steam generating plant of like BTU capacity. Even if stand-by storage tanks for liquid gas are required, the investment is still much less.

(3) Some processing equipment, such as dryers and curers, can be operated at higher temperatures than may be obtained with steam pressures available in most plants. Consequently, the capacity of these units improves considerably, or the same capacity can be achieved with smaller equipment. This means a lower cost per yard of cloth.

(4) An added saving comes from the fact that overheating and overdrying of the fabric is avoided, particularly when ranges are stopped, since temperatures can be regulated exactly.

Major Applications

The first major application of gas heat on processing units was in curers and bakers used to heat and treat resins, water repellents, resin bonded colors and other permanent finishes. Modulating gas burning equipment was developed for these units that would provide uniform temperature and, consequently, uniform treatment throughout the length of the goods (high-low controls then available were unsatisfactory).

The second major application was on all new high capacity gas heated air dryers where quality and uniformity of results coupled with fast drying were required. Special gas burners for these requirements were also developed with a high turndown ratio and an automatic low fire position for the period when the range stopped. In these units, as well as in the curers, the burners with firing tubes are located on the inlet section of the fans so that there will be good mixing in the fans of the recirculated air and the hot products of combustion to insure uniformity of drying, fillingwise.

These dryers, designed to utilize the advantages of fast drying, and equipped with a means of accurately graduating the air circulation and temperature, provide the means of obtaining excellent uniformity of drying with a minimum of migration. However, during recent years many new dyes and fibers have been offered the finisher which give the best of results at lowered costs, but have a greater tendency to migrate from face to back and from thick to thin yarns. Then, too, due to mechanical picking and other causes, the woven fabric has more small tufts or nubs that cause small dark or light spots in the dyed goods.

To meet these problems, some change in the existing dryers or some new type of dryer was indicated. Prior experience with drying by radiated heat has demonstrated that migration could be reduced if the goods and the water in them were heated to the evaporation point and the actual drying started at that temperature without air circulation. Up to that time, however, such trials had been made only with high temperature electrically heated rods or gas heated ceramic blocks. Inasmuch as ranges must stop at times and neither of these sources of radiant heat could be cooled down fast enough to avoid damage to the goods without retractable mountings, little use was made of them.

Later a new type of burner was made available that burned the gas on the face of the burner just after passing through a thin perforated ceramic wall. This wall is kept relatively cooler by the passage of the premixed air and gas to the face when it is burned. The perforated wall cools quickly because only gas is shut off and the air is left on. But the temperature cannot be varied.

Another radiant dryer was being developed at this time utilizing relatively large surfaces at temperatures under 1,000° F. In this dryer in contrast to previous radiant burners and electrical units the temperature of radiant panels can be regulated over a wide range. Much experimental work with these dryers is now being carried out by finishing plants with improvement of the dyeing with some dyes and fabrics. Of course, such trial runs are expensive, but the results appear to justify the expense of the experimental runs.

The business of finishing textiles is an art and it's bound to stay an art. Whoever uses the right equipment for the right fabric and the right finish can, no doubt, always look forward to a reward for having found the right combination, for awhile.

Another place where gas heat can be used to advantage is to heat the fresh air supply to the wet processing finishing rooms. A type of burner has been developed and placed on the market that has a range wide enough for moderate climates and because it is used only for heating fresh air the products of combustion can go into the air stream to the building served by it. This burner can be installed where the steam heaters would ordinarily be installed, but no face and by-pass dampers are required because all temperature regulation needed is obtained by regulating the flow of gas to the burner. Safety controls prevent opening the gas valve until the supply fan is running. This means no freeze up of heating coils.

---

*Andrews & Goodrich Co., division of Midland-Ross Corp., Boston, Mass. Presented at the American Gas Symposium, Greensboro, N. C., September 15-16.

Factors To Consider In Buying Gas-Heated Dryers

The purchaser of new gas-heated dryers or material and parts to convert a steam-heated dryer or other units to gas heat, must look at a large number of things besides the price. For what may appear to be the lowest price may well be the highest in the end. Consideration must be given to:

(1) The quality and quantity of work taken off the range after the conversion as this may be vitally affected by the gas burning equipment.

(2) The shutdown time of the unit for gas burner interruption may greatly reduce the weekly production over a long period.

(3) The lack of approval by your insurance company may hold up the start of the job and cost extra for parts not furnished in the original shipment.

(4) There are many parts in the gas burning equipment and the safety controls. The purchaser should buy the gas burning equipment from a drawing furnished by the seller showing all necessary parts. He should buy the safety controls in the same way or in a prewired control cabinet.

It is all too easy to purchase the equipment at the lowest price offered and find when the actual installation is made that there are so many parts still to be purchased, and so many hours labor required to assemble them that the cost of the job purchased was well over the high bidder price. Nor should the purchaser fail to provide for making the unit to be converted, fire safe for explosion areas and purge fan.

In all cases where stand-by propane may be burned at times, the burners and controls should provide a quick and easy changeover.

In approaching the purchase of new gas-fired equipment or converting old units to gas the purchaser has several choices to make beyond the basic engineering design:

(1) The type of burning equipment must be chosen—with gas premixed or mixed at or near the burners; whether line burners or nozzle, one large or several small ones.

(2) How much of the required material or how many of the gas parts are included in the original purchase order? Will you receive only the very essentials such as air blower, the burners, the air gas mixer and regulating device or will your order cover virtually everything but the piping and main shutoff cock? Does it include pressure regulator for main supply and pilot valves, solenoid valves, mounting brackets, approved piping layout drawings?

(3) How much of the required equipment for starting, regulating and indicating the operation, plus all the parts in the safety circuits are included? Are they assembled in a cabinet or on a panel with the wiring done and checked out, or simply individual parts unmounted?

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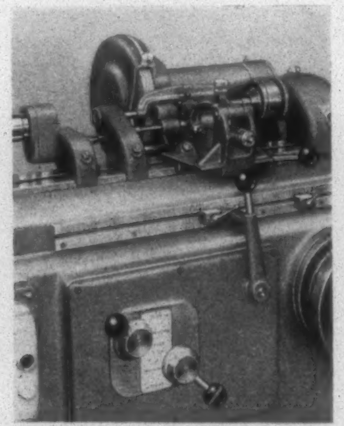

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The Designing Of Pile Fabrics

By E. B. BERRY

CORDUROY, BEING A FILLING PILE MATERIAL, REQUIRES GREAT CARE IN WEAVING AND CUTTING

Chapter 12

Corduroy

THE Callaway Textile Dictionary defines corduroy as follows: "A stout durable cotton fabric having pronounced cords running warpwise. The cords are made of cut pile and are termed wales. They are separated from one another by narrow cut lines known as welts. The wales per inch may vary from 1 to 22. The material is woven with two systems of filling, ground and pile, and has a high number of picks per inch. In the finishing of corduroys the pile picks are cut to form the tufted cords. A very satisfactory fabric for outdoor wear of all kinds, sportswear, slacks, children's clothing, and in the fine wale type as a dress fabric. From French 'Corde du Roi,'—King's cord."

Corduroy introduces a new type of pile fabric, which is filling pile and is in contrast to the warp pile fabrics discussed thus far.

Fig. 80 illustrates the weave, drawing-in-draft and cross-section of a corduroy. This cross-section is the appearance of the fabric as it is woven, and does not look like the corduroy we are all familiar with, which is made up into a man's sport coat or ladies' skirt.

In the cross-section, the dark threads are the pile picks, and are seen to float over several ends. Pick 2 is under end 1, floats over ends 2 through 8 (or 7 ends), then it goes under end 9, and again floats over ends 10 through 14 (or 5 ends). Pick 3 floats over ends 3 through 7 (or 5 ends), under end 8, floats again over ends 8 through 14 plus end 1 (or 7 ends), then under end 2.

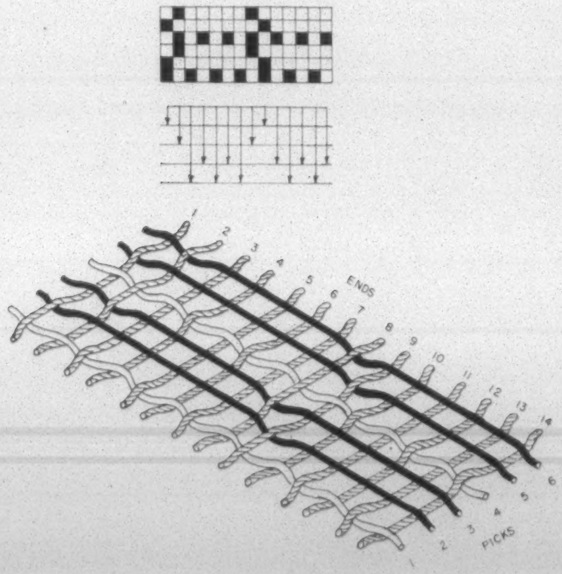

Fig. 80

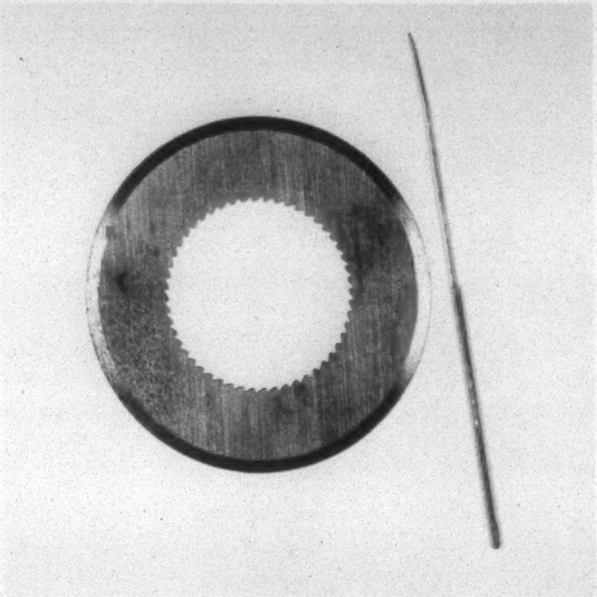

Fig. 81

The white threads are the ground picks, and weave plain with the cross-hatched threads which are the ground ends. The ground picks are thrown from the same shuttle as the pile picks, which makes possible the use of a Draper loom, and a drop box loom is not necessary.

Cutting Corduroy

After this fabric comes from the loom, the pile picks are cut in an unusual way. Fig. 81 illustrates the needle and knife used for this cutting. A needle is inserted in the fabric above the ground ends and picks, but below the pile picks. It will find its own center between ends 2 and 8. A knife is inserted in the slot in the needle and is lowered so that it will cut the pile picks but not the ground fabric. A separate needle with its own knife is inserted under each row of floating pile picks.

All these knives are mounted on a bar, which rotates as the cloth moves. This brings the pile picks against the cutting edge of the knife. When the cutting circumference becomes dull, the entire knife is sharpened.

Fig. 82 illustrates how the needle and knife function to cut the pile picks. A stop motion is incorporated in the needles on the cutting machine. Should a pile pick be broken, the needle will pop up, and the cloth will stop. At this point, the operator will insert the needle again, and start up. If this does not happen, and the needle jumped up due to a broken pile pick, all the pile picks in that wale during the remainder of the length of cloth would be uncut, which would render the fabric unsaleable. Broken picks cannot be tolerated in corduroy, and most looms weaving this fabric will be equipped with a center fork filling stop motion.

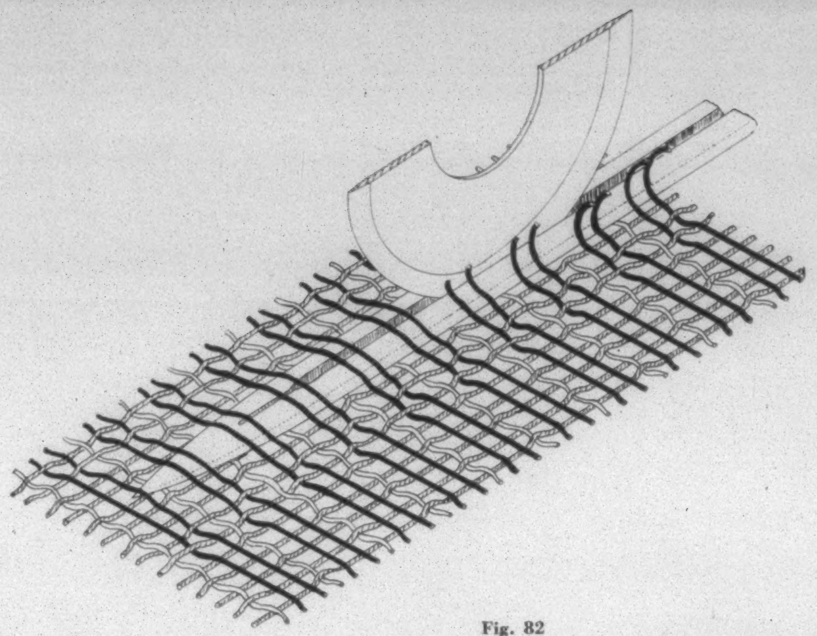

Fig. 82

Typical Constructions

There is no one weave for a corduroy fabric, but rather corduroy is a class of cloths with different weaves and constructions.

The following are some typical corduroy fabrics:

Widths	Ends x Picks	Warp Yarn	Filling Yarn
40″	46 x 116	16/1	13/1
40″	70 x 250	80/2	50/1
40″	80 x 146	30/1	20/1
39″	56 x 210	60/2	30/1
39″	76 x 140	24/1	22/1

It can be seen that the pickage is very high on all of these fabrics, which is one of the characteristics of corduroy.

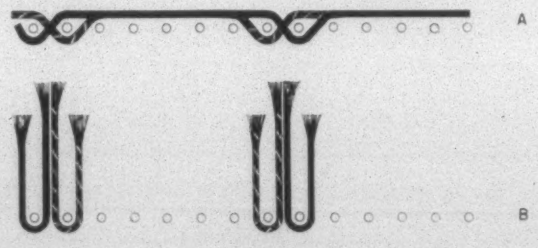

Fig. 83

Another feature of corduroy is its rounded cords. Fig. 83A shows a cross-section of the pile picks before cutting. Fig. 83B illustrates the pile picks after they are cut and standing up. The rounded top is created by the binding of the pile picks on 2 different ends. It will be noted that all the pile picks bind on the same 2 ends. In order to keep this rounded effect from the cutting, the fabric is singed in finishing. This removes the loose and protruding fibers, yet maintains the rounded cords, which close shearing would destroy.

In wide wale corduroy, a needle and knife are inserted under each welt, and the entire piece is cut in one operation. In pin-wale corduroy, there is not sufficient space side-by-side for up to 22 knives, therefore two cuttings are needed. The odd wales are cut in one operation and the piece is run through the cutting machine a second time and the even wales are cut. This is costly, and the danger of creating seconds is doubled, but is necessary because there are more wales per inch than can accommodate knives per inch.

Corduroy Variations

The corduroy seen so far is the simplest, and forms a "V" tuft after cutting. Any V tuft has a tendency to be pushed out the back when sufficient pressure is applied from the face. Also it may pull out in cutting, if the knives are dull. In order to overcome this, a "W" tuft may be used which will bind the tuft in the ground fabric and offer much more resistance to pushing or pulling than the V tuft. This W tuft is made with "ups"-"downs" and "ups" between the floats instead of one "up" only. Fig. 84 shows the weave for such a W tuft.

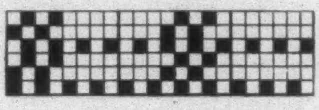

Fig. 84

Even in the W tuft, the rounded cord is maintained. Fig. 85A shows a cross-section of the pile picks before cutting, while Fig. 85B illustrates the pile picks after they are cut and standing up.

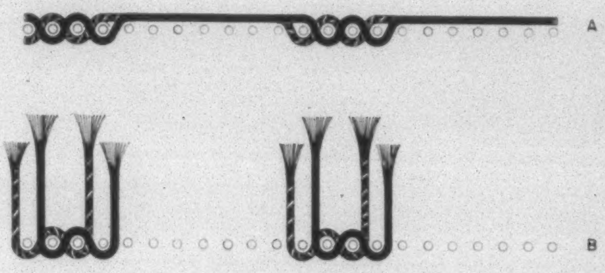

Fig. 85

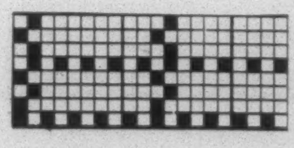

Fig. 86

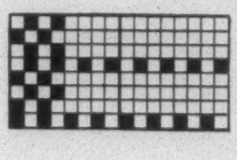

Fig. 87

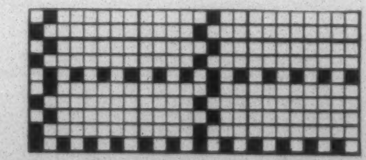

Fig. 88

A variation in the corduroy weaves is the ratio of pile picks to ground picks. In the illustrations seen so far, there are 2 pile picks to one ground pick. This ratio may be 3 to 1 as seen in Fig. 86 (V tuft) and Fig. 87 (W tuft) or even 4 to 1 as seen in Fig. 88 (V tuft).

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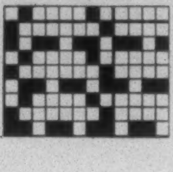

Fig. 89

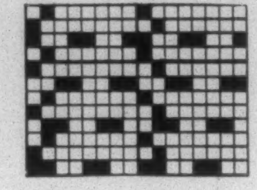

Fig. 90

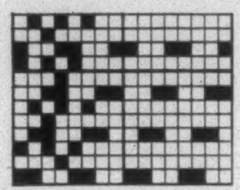

Fig. 91

Another variation is in the weave of the ground picks with the ground ends. So far, the ground weave has been plain. When the picks per inch become very high, the ground weave must be opened up, to allow for more filling diameters. The ground weave may be 2-1 twill as seen in Fig. 89 or a 2-2 twill as seen in Fig. 90.

Fig. 91 is the weave for a rather unusual corduroy. The ground weave is a 2-2 twill, but the pile picks weave odd. One tuft is a V and the other is a double W.

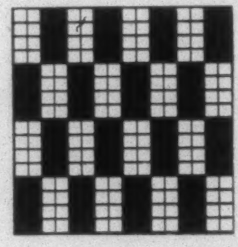

Fig. 92

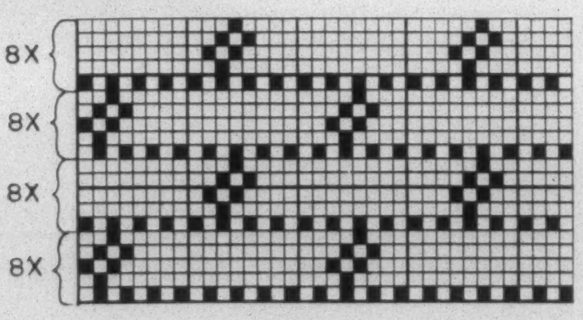

Fig. 93

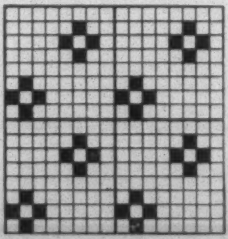

Fig. 94

A motif is often used in designing fancy corduroy. Fig. 92 shows the motif and Fig. 93 shows the weave to produce the effect in the cloth. Another motif is shown in Fig. 94. This is a spot design. The weave for this is shown in Fig. 95.

In a corduroy fabric with a given sley, the height of pile

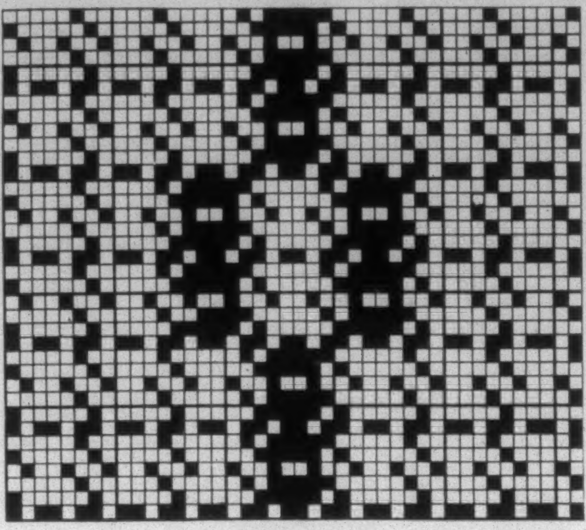

Fig. 95

and the number of wales per inch are dependent upon each other. To get a higher pile height, the pile picks must float over more ends, which means there will be fewer wales per inch. If more wales per inch are desired, the pile height must be reduced.

Imitation Corduroy

True corduroy is a filling pile fabric. It is possible to weave an imitation corduroy, two pieces at a time, on a double shuttle plush loom. The weave and drawing-in-draft for this are shown in Fig. 96 with a cross-section in Fig. 97. There are two systems of pile yarn used; No. 1 makes a W tuft and No. 2 makes a V tuft. This means each pile will have a different delivery. One will go through the regular pile delivery motion, and the other will go through the slack backing delivery motion (See Chapter 1, T. B., December 1959).

Dent No. 1 has a pile end on the left and dent No. 2 has a pile end on the right. There are six backing ends between these two pile ends. This is equal to the welt in true corduroy. All the pile ends are grouped together, with not even a backing end in dent No. 4. This is equal to the wale in true corduroy.

Such fabric is serviceable, but does not have the wearing qualities of true corduroy.

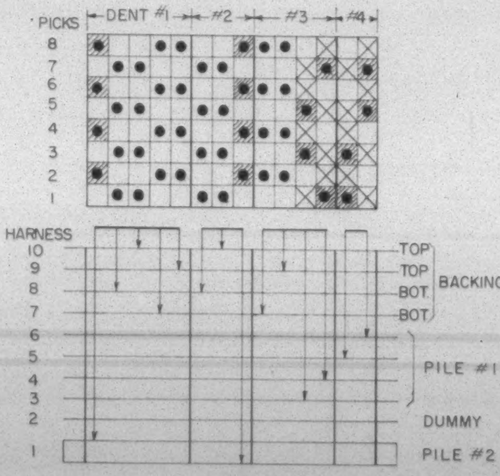

Fig. 96

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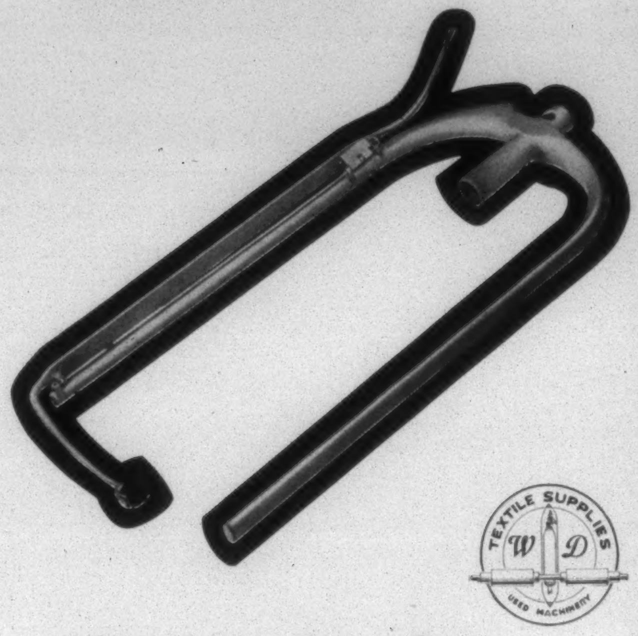

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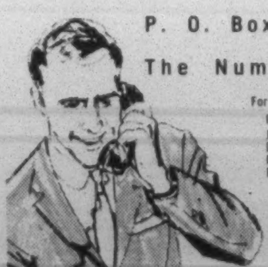

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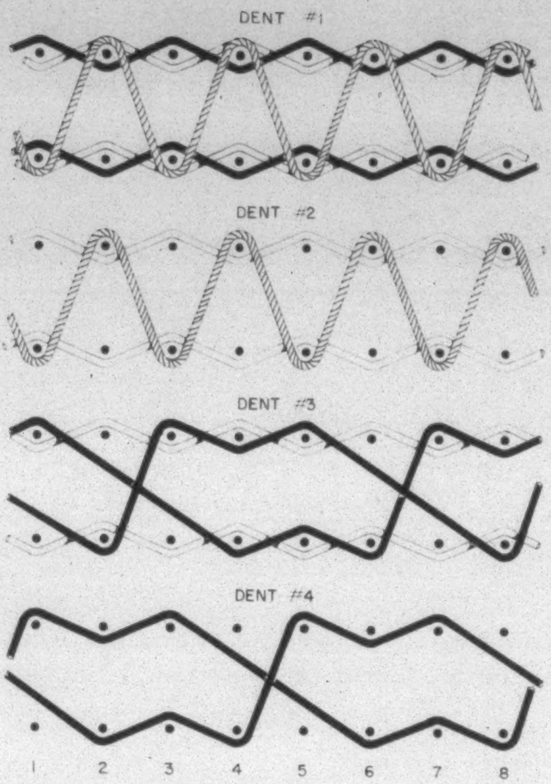

Fig. 97

Filling contraction in corduroy is high—up to 15%. Rubber or cork temple rolls would not hold out these fabrics to approximately the reed width during the beat-up. A burr is needed but the conventional four-inch type cannot be used.

With the high picks per inch in corduroy, the take-up is very slow, and the fabric is on the temple pins a long time. The pins would tend to cut the filling, and when the fabric came to the cutting machine, the needles would jump out and stop the cutting. Very little efficiency could be achieved on the cutting machine.

When weaving corduroy a "selvage temple" is employed. This is a burr, but only about ½-inch wide. It grips the selvage and holds the cloth out to width. This ½-inch on each side is not cut in the finishing. What looks like a selvage on the fabric is really the ½-inch strip, with the pile picks uncut.

When making an analysis of a corduroy, it will make the job easier if a piece of the fabric at the selvage can be obtained. This uncut portion is of great assistance in picking out the weave, to find the ratio of the pile picks to ground picks, V or W tuft, length of float, etc.

Finishing

Following is a typical corduroy flow chart: weave; measure; greige inspect; cut; singe; inspect; scour or boil out; bleach or dye; extract and dry; brush and wax; inspect; color match; roll and wrap; and ship.

Brushing is done two ways—with the flow of the cloth and cross-wise. Wax is applied and brushed into the fabric. This gives a brighter finish and better hand.

Corduroy is used for sport coats, skirts, rain coats, lounging pajamas, children's wear, caps, dresses, handbags, etc.

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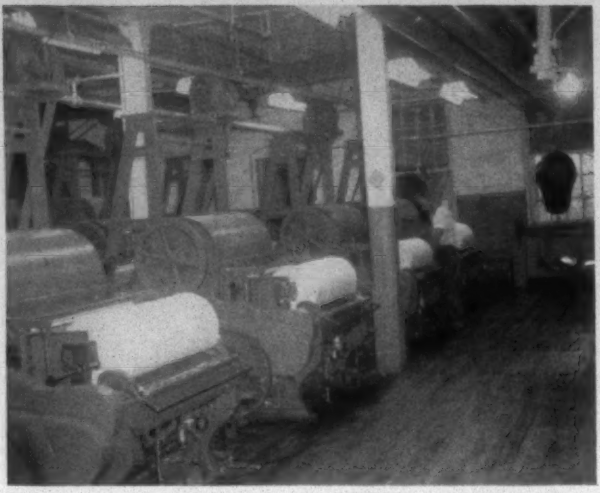
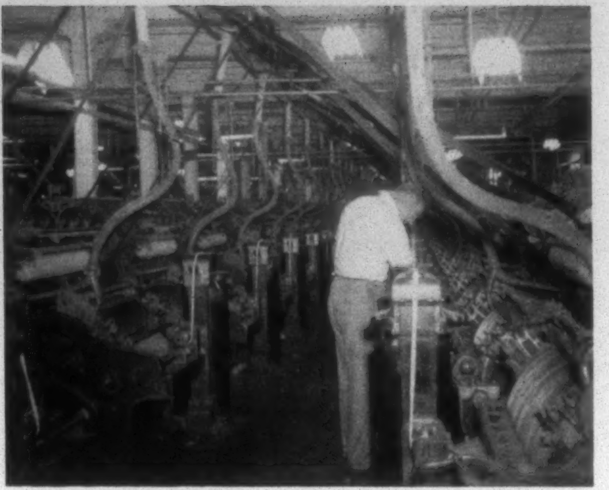


Berryton has an all-new picker room equipped with four Aldrich pickers.



Cards have been completely rebuilt and equipped with vacuum stripping.

Harriet & Henderson Modernizes Georgia Mill

BERRYTON, GA., MILLS IS BEING EQUIPPED WITH THE MOST MODERN YARN-PRODUCING MACHINERY

By **WILMER WESTBROOK**

HARRIET and Henderson Cotton Mills is modernizing its Berryton, Ga., mill. Built in 1883 by the Raccoon Mfg. Co., the plant was bought in 1910 by John Berry of Rome, Ga., who expanded it. Harriet and Henderson acquired the mill in 1958 to supplement its production of quality cotton yarns.

The modernization program, under the direction of Berryton's president, A. B. Hammond, is now well-advanced. Here are some of the accomplishments:

(1) Four new Aldrich pickers, complete with gyrators and all auxiliary equipment, have been installed.

(2) All the mill's 135 cards have been completely rebuilt and equipped with vacuum stripping. Some of the cards have been fitted with individual drives on a trial basis.

S. H. Caldwell, Berryton's general manager, is currently testing a number of individual card drives.

The spinning department has latest machinery and equipment; note spring-bottom roving boxes and metal creeling truck.

(3) Plans call for the installation of high-speed drawing and large-package roving frames.

(4) The biggest new machinery installation has been in spinning. This department has been equipped with 48 new Whitin Superflex spinning frames. These frames have variable-speed drives, Pneumafil waste recovery systems, Casablanca creels and Parks-Cramer overhead cleaners.

(5) An air-changing system and a completely new humidifying system have been put in the spinning department.

(6) New flooring was put down as the machinery was installed and the floor is sanded, sealed and varnished. New fluorescent lights were also installed.

(7) The entire electrical system of the mill has been rebuilt.

(8) Other recent machinery installations include seven

Winders are also new, with 102 winding units per frame. Like balance of mill, winder room is well-lighted and clean.

Yarn is inspected, weighed and packed in this room and then transferred to nearby warehouse to await shipment.

new Foster and three new Leesona winders. Yarn is put up on both cones and tubes.

Most of Berryton Mill's production is composed of cotton yarns, 6s to 20s count, used in the hosiery and knitted underwear trade. Yarn is shipped by truck from Berryton to Harriet and Henderson customers in all parts of the country.

Shipments Of Tufted Textiles Increase In First Half Of Year

The value of manufacturers' shipments of tufted rugs and carpeting during the first half of 1960 was 6% above the previous year's shipments, and 11% above the shipments during the first half of 1959.

Shipments of rugs and carpeting, including roll goods (rugs larger than four by six feet) were 9% above the last half of 1959 and 13% greater than shipments during the first half of 1959. Shipments of scatter rugs and bathmats declined 11% from the previous half-year level but were 1% higher than shipments during the comparable period of 1959.

Tufted bedspread shipments in the first half were 5% above the shipments of the comparable period of 1959.

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Carded Yarn Group Meets At Asheville, N. C.

THE GROUP HEARD WARNING OF IMPORT THREAT, ELECTS MORETZ PRESIDENT FOR COMING YEAR

DESPITE the fact that it was largely a social outing, the 15th annual meeting of the Carded Yarn Association in Asheville, N. C., October 19-21 served as a sober reminder to its members that imports of foreign-made yarns are weakening the price structure of domestic producers.

Members of the association were told that imports during the first eight months of 1960 are running almost 1800% over totals of a year ago. In an effort to do something about it, the association's board will meet early in December to discuss possible courses the association can take to curb this threat. The meeting will be held about a month following the national elections so that spokesmen for the association will by then know the make-up of both the Administration and Congress.

In the meantime domestic carded mills were urged to balance the supply and demand factor in production in an effort to iron out the peaks and valleys that have historically plagued the industry.

Election Of Officers

Moretz

In an election of officers, O. Leonard Moretz, president of Carolina Mills Inc., Maiden, N. C., was named president to succeed L. E. Bowen, president of Tifton (Ga.) Cotton Mills. Moving up from second to first vice-presidency is W. R. Austin, Avondale Mills, Sylacauga, Ala. B. D. Banks of Habersham (Ga.) Mills was elected second vice-president, and E. O. Fitzsimons was re-elected executive vice-president.

New directors elected for two-year terms included Frank Pate, Wehadkee Yarn Mills, West Point, Ga.; W. W. Rogers, Candlewick Yarn Mills, Dalton, Ga.; R. L. McCommon Sr., Atlantic Cotton Mills, Macon, Ga.; Hyman L. Battle, Rocky Mount (N. C.) Mills; David LaFar, LaFar Mills, Gastonia, N. C.; Hal W. Little, Little Cotton Mfg. Co., Wadesboro, N. C.; and T. C. Smotherman, American & Efird Mills, Mount Holly, N. C.

Golf Competition

In members' golf competition, T. B. Battle of Rocky Mount (N. C.) Mills won first low net and Sonoco Products Co.'s silver cup. M. B. Foil Jr., Tuscarora Cotton Mills, Mt. Pleasant, N. C., took low gross honors. Other winners in the members' division included David LaFar, LaFar Mills, Gastonia, second low net; Leon Ham, Boaz (Ala.) Mills, second low gross; Ernest Rees Jr., Elk Cotton Mills, Fayetteville, Tenn., third low net; and J. C. Shaw, Rocky Creek Mills, Turnersburg, N. C., third low gross.

Winner of the Clark Publishing Co. cup for low net in the associate members' competition was W. H. Cronin Jr., W. H. Cronin Co., New York City. Bert Latta of Latta, Currier Co., New York, took low gross honors. Other winners included Art Currier of Latta, Currier, second low net; W. R. Peacock, Sonoco Products, Hartsville, S. C., second low gross; H. B. Patterson, Whitin Machine Works, Greensboro, third low net; and E. F. Sherman Jr., J. F. Street Co., Providence, R. I., third low gross. John A. Reagan of Sonoco Products served as tournament chairman; Junius Smith, TEXTILE BULLETIN, was vice-chairman.

September Decline Shown In Domestic Shipments Of Acetate And Rayon Yarns

Acetate yarn deliveries to domestic mills at 15.1 million pounds in September were 10% below the August level of 16.8 million pounds; but cumulative nine months deliveries at 171.8 million pounds were 4% above those of the same period of 1959, according to the *Textile Organon,* published by the Textile Economics Bureau.

September domestic shipments of rayon at 56.1 million pounds were 6.2 million pounds or 10% lower than the previous month; January-September shipments at 539.8 million pounds were 18% less than the 655.2 million pounds of the same 1959 months, the journal reports.

The combined exports of acetate yarn and rayon during September at 1.5 million pounds was down 38% from the August level of 2.5 million pounds.

September domestic deliveries of rayon staple+tow amounted to 26.5 million pounds, 9% below the 29.2 million pounds of August. Regular+intermediate tenacity rayon yarn shipments to domestic consumers amounted to 11 million pounds in September or 12% below the previous month's 12.5 million pounds. High tenacity rayon yarn deliveries of 18.6 million pounds in September declined 10% from their August level of 20.6 million pounds.

Acetate and rayon yarn production at 73.9 million pounds in September was 1.2 million pounds greater than shipments. Thus the total inventory of these products increased to the September 30 level of 127.5 million pounds.

Woolen And Worsted Activity Up

The Bureau of the Census reports that the weekly average rate of fiber consumption on the woolen and worsted systems in August was 22% above the July rate but 5% below the August 1959 level. Production of man-made fiber top from tow without combing is excluded from this tabulation.

The weekly average raw wool consumption during August was 8,623 thousand pounds (scoured basis) or 25% above the July level but 1% below the August 1959 rate. Consumption of apparel class wool was 9% above the July rate and 4% below the rate of August of last year.

The rate of consumption of carpet class wool increased 56% from the consumption during the preceding month, and 3% from the comparable period of last year.

Consumption of fibers other than raw wool averaged 5,563,000 pounds per week. This was 17% more than the rate during the preceding month although it was 11% below the August 1959 rate.

Fibers Consumed in Woolen Spinning and Worsted Combing, August 1960

(Thousands of pounds—scoured basis for greasy wools)

	August 1960 (4 weeks) Weekly Average	July 1960 (4 weeks) Weekly Average	August 1959 (4 weeks) Weekly Average
All fibers, total	14,186	11,650	14,977
Raw wool	8,623	6,912	8,745
Apparel class	5,099	4,660	5,326
Woolen system	2,253	2,022	2,571
Worsted system	2,846	2,638	2,755
Carpet class	3,524	2,252	3,419
Noils, reprocessed and reused wool, and other animal fibers	3,141	2,669	3,644
Man-made fibers	2,113	1,757	2,234
All other fibers	309	312	354

The Census Bureau's revised report for 1959 woolen and worsted consumption indicates that consumption for the year was 731 million pounds, 19% above the 1958 level of 615 million pounds.

Consumption of raw wool (scoured basis) was 429 million pounds in 1959, an increase of 30% compared to 1958. The 1959 consumption of apparel class raw wool amounted to 261 million pounds compared to 212 million pounds in 1958, an increase of 23%. Carpet class wool consumption at 168 million pounds increased 41% compared to 1958.

Fibers Consumed Annually in Woolen Spinning and Worsted Combing, 1957-1959

(Thousands of pounds—scoured basis for greasy wools)

Classification	1959 (52 weeks)	1958 (53 weeks)	1957 (52 weeks)
All fibers, total	731,145	615,054	654,583
Raw wool	429,248	331,087	368,761
Apparel class	261,243	212,012	240,850
Woolen system	119,109	101,247	122,985
60s and finer	43,153	35,259	42,281
50s up to 60s	58,787	52,511	63,644
48s and coarser	17,169	13,477	17,060
Worsted system	142,134	110,765	117,865
60s and finer	87,875	70,293	78,616
50s up to 60s	47,716	34,169	33,079
48s and coarser	6,543	6,303	6,170
Carpet class	168,005	119,075	127,911
Noils, reprocessed and reused wool, and other animal fibers	172,713	156,586	160,863
Man-made fibers	110,543	107,132	100,827
All other fibers	18,641	20,249	24,132

Increases have also been reported in the production of woolen and worsted woven goods. Woolen and worsted production during the second quarter of 1960 was 80.7 million finished linear yards, 9% above the first quarter and 6% below the output during the second quarter of 1959.

The output of women's and children's clothing fabrics at 46.2 million finished linear yards was 17% above the previous period and was about equal to the second quarter's level. Men's and boys' clothing fabric production equalled the previous quarter's level, but was 13% less than the output during the second quarter of 1959.

Production of woolen and worsted fabrics in New England amounted to 38.5 million yards, or 12% above the previous quarter's output. Production in the Southern states amounted to 33 million yards or 6% above the previous quarter's level.

Cotton Broadwoven Production Off 2% In The Second Quarter

Cotton broad woven fabric production in the second quarter of 1960 was approximately 2% below the previous quarter but 1% above the second quarter 1959 level. Production of each of the major fabric classes declined from the previous quarter, according to the Bureau of the Census. Following are the major types of goods, production figures and percentage change: duck and allied fabrics, 52.6 mil-

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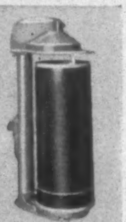

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lion yards, —2%; sheeting and allied coarse and medium yarn fabrics, 662.5 million yards, —7%; print cloth yarn fabrics, 849.5 million yards, —2%; colored yarn fabrics, 117 million yards, —11%; towels and toweling, 139.5 million yards, —3%; napped fabrics, 57.5 million yards, —2%; fine cotton fabrics, 428.7 million yards, minor change; other woven cotton fabrics and specialties, 118.5 million yards, —3%.

Production of cotton fabrics in the Southern states amounted to 2,247 million linear yards. This was 2% below the fourth quarter 1958 output. The New England production was 6% below the previous quarter.

In its revised summary for 1959, the Census Bureau reports that production of cotton broad woven goods for that year amounted to 9,599 million linear yards, an increase of 7% from the 1958 level and almost 1% from the 1957 level. Following is a tabular arrangement of production by class of fabric:

Summary of Cotton Broad Woven Fabric Production for 1958-1959
(Thousands of linear yards)

Type of goods	1959	1958
Cotton broad woven goods, total	9,598,796	*8,973,704
Duck and allied fabrics	223,462	*200,212
Sheeting and allied coarse and medium yarn fabrics	2,594,819	*2,310,774
Print cloth yarn fabrics	3,382,849	3,339,005
Colored yarn fabrics	519,731	*484,951
Towels, toweling and dishcloths	571,626	*534,849
Napped fabrics, blankets and blanketing	205,870	195,750
Fine cotton fabrics	1,608,680	1,453,437
Other woven cotton fabrics and specialties	491,759	*454,726

*Revised.

Greige Goods Production Down In June

The weekly average production of greige goods in June reached its lowest point of the first six months of 1960. Weekly average production for June was 236 million linear yards as compared with 240 million pounds in May.

Weekly average production of cotton greige goods in June was 187 million linear yards. Synthetic greige goods showed a weekly average of 43 million pounds. Synthetic greige goods showed a weekly average of 43 million pounds. Some 488,000 yards of silk greige goods were produced each week in June and 6.4 million linear yards of wool apparel fabrics.

Some 115 million linear yards of white and plain-colored fabric were finished each week in June, approximately the same as in May.

Weekly average production of finished synthetic and silk fabrics was 46 million yards in June as compared with 38 million yards in May.

Textile-Electrical Meeting Set For November 10-11 In Raleigh, N. C.

The annual conference on electrical equipment for the textile industry sponsored by American Institute of Electrical Engineers and North Carolina State College School of Textiles will be held November 10-11 at N. C. State College in Raleigh. Technical presentations will be given from 1:30 to 4:30 p. m. on Thursday, November 10, and from 9 a. m. to 2:45 p. m. Friday.

Technical presentations to be offered Thursday afternoon include: "Textile School Research," Henry A. Rutherford, professor and head of the textile chemistry department and director of chemical research at the School of Textiles; "New Electrical Applications Through Textile Research," J. C. Hogg, electronics department of the research division of West Point Mfg. Co.; "Electric Temperature and Humidity Control Systems," R. T. Waits, branch manager, air-conditioning division, Minneapolis-Honeywell Corp.; "Warper Drive Systems," John A. McCoig, electrical engineer, Cocker Machine & Foundry Co.; and "Use of Metallic Raceways for Grounding in Distribution Systems," Ralp H. Lee, senior development engineer, the Du Pont Co., Wilmington, Del.

Friday morning technical presentations will include: "Silicon Controlled Rectifiers for Regulators," W. E. Cronquist, application engineer, industry control department of General Electric Co.; "Magnetic Amplifier Controlled Silicon Diode Power Supplies for D. C. Motors," F. T. Bailey, systems control engineering department, motor and control division of Westinghouse Electric Corp.; "Dynamic Balancing," John W. Whitfield, associate professor of mechanical engineering, N. C. State College; "Stroboscopic Instruments and Their Application in the Textile Plant," M. J. Fitzmorris, engineer, General Radio Co.

The Friday afternoon session will be devoted to "A Look at the Recommended Practices for Electrical Installations on Textile Machinery," as taken by Dan McConnell, president of the Southern Electrical Equipment Co., Victor Sepavich, manager of the research and engineering division of Crompton & Knowles Corp., and H. S. Colbath, plant engineer with Bibb Mfg. Co.

N. C. State College Textile School Reports Fall Freshman Enrollment Up 100%

A concerted recruitment program and several new scholarships are credited with helping to increase freshmen enrollment 100% at the N. C. State College School of Textiles. Dean Malcolm Campbell said that the freshman Fall enrollment was 148 as compared with 74 who registered last Fall. This brings the total enrollment to 435, a 24% increase over last year.

10 Billion Yards Of Fabric Finished In 1959 According To Revised Data

A total of 10,179 million linear yards of cotton, silk and man-made fiber fabrics was finished during 1959, according to revised figures released by the U. S. Census Bureau. This was 8% above the 1958 figure and 4% above the 1957 output.

Cotton fabrics finished amounted to 7,918 million linear yards or 8% more than the quantity finished in 1958. Of the cotton total 111 million linear yards were accounted for by duck and allied fabrics. Sheeting and allied coarse and medium yarn fabrics accounted for another 1,589 million yards. Cotton print cloth finished in the year totalled 2,899 million yards. Colored yarn fabrics accounted for 315 million yards of the cotton total. Towels accounted for 512 million yards; and napped fabrics accounted for 366 million yards. Fine cotton combed goods finished in 1959 totalled 1,625 million yards. Specialties and other cotton fabrics accounted for 497 million yards.

Some 2,261 million linear yards of silk and man-made fiber goods were finished in 1959, 9% more than the previous year. Of this total, silk accounted for 34 million yards. Rayon and/or acetate broadwoven goods accounted for 1,435 million yards. Man-made fiber fabrics other than rayon and acetate accounted for 791 million yards.

Of the total fabrics finished, 6,631 million linear yards were finished for apparel uses. This was 10% above the 1958 level. The quantity finished for household uses at

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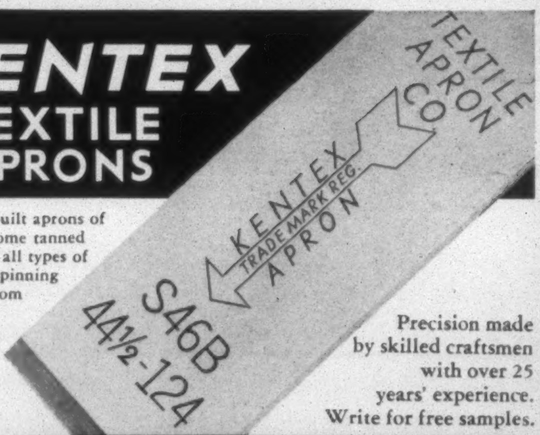

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2,060 million yards, was up 8% from 1958. Fabrics finished for other uses increased less than 1%.

Finishing plants located in South Carolina finished 31% of the cotton goods. North Carolina and Massachusetts followed with 17% and 11%, respectively. In the finishing of man-made fiber and silk fabrics, New Jersey was the most important state, accounting for 38% of the total production, while Massachusetts and North Carolina accounted for 15% and 12%, respectively.

The 1959 production of cotton, rayon and acetate resin finished fabrics for crease resistance amounted to 2,279 million yards, or 23% more than was reported for 1958. Similar figures for nylon and the new man-made fiber fabrics were not collected. Other fabrics chemically treated for crease resistance totalled 84 million yards in 1959 as compared with 65 million yards in 1958.

Woodside Re-Named President Of Textile Hall Corporation

James H. Woodside has been re-elected president and treasurer of Textile Hall Corp., Greenville, S. C., for 1960-61. Sydney Bruce was renamed vice-president and Miss Bertha Green, secretary.

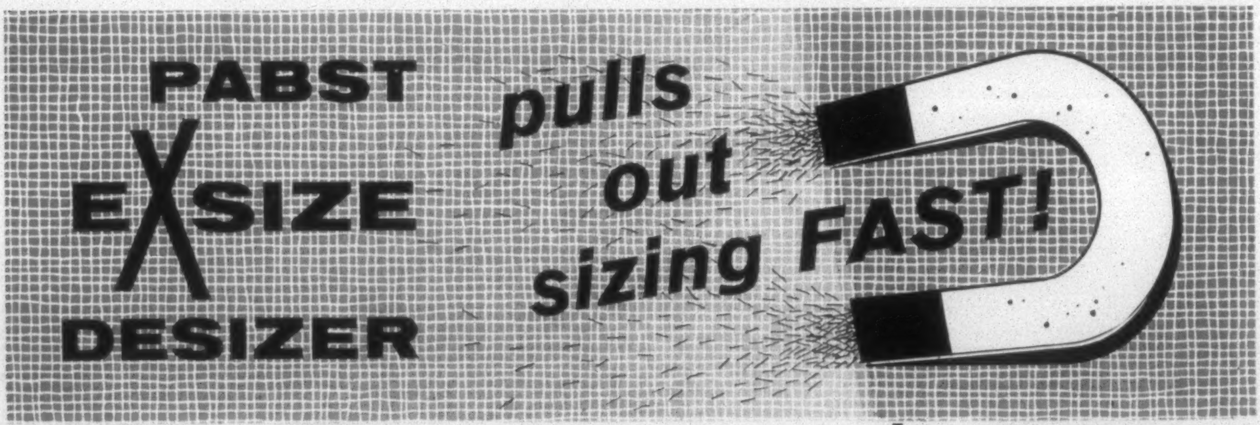
New directors of the corporation are: J. Mac Cheatham, president of Dundee Mills, Griffin, Ga.; William F. Robertson, vice-president of Riegel Textile Corp., Ware Shoals, S. C.; Robert S. Small, president of Woodside Mills, Greenville; and W. Harrison Trammell Jr., director of engineering for J. P. Stevens & Co., Greenville.

Re-elected directors were Sydney Bruce; Donald Comer, Robert I. Dalton, Charles E. Daniel, C. A. Gibson, Ben F. Hagood, C. E. Hatch, Roger Milliken, E. S. McKissick, W. S. Montgomery, Ernest Patton, R. B. Sellars, Earle R. Stall, George M. Wright and James Woodside.

Boston Plane Crash Kills 15 Textile Men

Fifteen persons in the textile and related industries were killed October 4 in a major plane crash at Boston's Logan International Airport. A number of them were on their way to the Southern Textile Exposition in Greenville, S. C.

Killed in the crash were: Frederick FitzGerald, 58, research director and board member of the Draper Corp.; Henry P. King, 49, secretary of American Safety Table Co.; Kenneth F. Simpson Jr., mathematician in the operation research group of Arthur D. Little Co.; William H. Mordo, 46, technical service manager for Stowe-Woodward Inc.; N. Warren Hess, chief research chemist for Stowe-Woodward Inc.; Henry L. Thomas, 48, service control manager of the domestic sales department of Whitin Machine Works; Ross B. Newton, 39, senior project engineer at the Whitin Machine Works research division; Evans Bedigian, 41, co-ordinator of changeover control in order administration department at Whitin Machine Works; Robert Scott, 52, regional manager of the Worcester, Mass., office of Westinghouse Electric Co.; M. E. Bottomley, 49, cashier at David Brown Co., bobbin manufacturer; Richard E. Gardner, 42, superintendent of Progressive Engineering Co.'s screw machinery department; Earle W. Harris, 47, shop superintendent of Progressive Engineering Co.; Richard E. Read, 46, credit manager of Kendall Mills; Robert J. Douglas, 37, assistant sales manager for Dewey & Almy Chemical Division of W. R. Grace & Co.; and A. B. Freeman Jr., 40, president of Samuel T. Freeman & Co., auctioneers of Boston and Philadelphia.



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Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

Milliken

The board of trustees of Wofford College Spartanburg, S. C., has voted to name the school's new $775,000 science building in honor of Roger Milliken. The new building will be called Milliken Science Hall. In taking its action, the board cited Milliken's time, thought and financial resources that had been contributed to the school.

C. W. Bendigo has resigned from Werner Textile Consultants where he was director of marketing in charge of marketing consultation work in North America, South America and Europe. Prior to joining Werner, Bendigo was associated for seven years with the fiber project of American Cyanamid.

Charles R. Walters has resigned as a vice-president and director of Abney Mills, Greenwood, S. C. Walters joined Abney in 1947. He had served as chairman of the audit committee of the American Cotton Manufacturers Institute and as chairman of the taxation committee of the South Carolina Textile Manufacturers Association.

Southworth

Rodney C. Southworth has been named acting director of research for the Draper Corp. to fill the vacancy caused by the death of Frederick M. FitzGerald. Southworth joined Draper in 1948 as counsel in charge of patent matters for the corporation and for the past several years, has been a member of the company's development committee. He has previously been engaged in patent work and allied with the research department of General Aniline Corp. in New York City. He holds degrees in mechanical engineering and law.

John B. Crosby and C. Eugene Rowe have been elected to the board of directors of the Iselin-Jefferson Co. Crosby, vice-president and general sales manager, has been associated with the company since 1949. He was made head of the synthetic department in 1952, vice-president in 1954 and general sales manager in 1958. Rowe has been secretary and treasurer of Dan River Mills, Danville, Va., since 1955. He is a director of Iselin-Jefferson Financial Co., Woodside Mills, Dan River International Corp. and the First National Bank of Danville. Iselin-Jefferson Co. is a subsidiary of Dan River Mills.

O. Leonard Moretz has been named president of Carolina Mills Inc., Maiden, N. C., succeeding Julius W. Abernethy who has resigned. Moretz has served as secretary-treasurer and general manager. He will continue as treasurer and general manager. The new secretary is Jack L. Thompson, who was general manager of Glenn Mills in Lincolnton, N. C., before its merger with Carolina last year. Abernethy was named chairman of the board.

Thatcher

Greene

Standard-Coosa-Thatcher Co. has announced the promotion of six officials in its manufacturing department. The officials and their new positions are: Joseph W. Thatcher, manager of the company's spinning division; Robert A. Greene, superintendent of the Thatcher plant; Charles Voss, superintendent of the Standard plant, the firm's mercerizing unit in Chattanooga, Tenn.; John Lancaster, assistant superintendent of the company's National plant in Rossville, Ga., and of its dyeing, bleaching and finishing plant; Roy Hicks, master mechanic at the National plant; and John Eager, chief engineer of the company with headquarters in Chattanooga.

J. A. McKew has been named superintendent of The Goodyear Tire & Rubber Co.'s mill in Cartersville, Ga. McKew, former assistant superintendent, replaces W. E. Floyd, who has retired. Joining Goodyear in 1929, McKew has spent 31 years with the firm's Rockmart, Cartersville and Cedartown, Ga., mills. He worked in various production capacities at Rockmart for 20 years before being named division superintendent at the company's Brazilian textile mill in 1949. Returning to Cedartown in 1954 in the efficiency department, McKew was appointed assistant superintendent at Cartersville in 1956. He is a graduate of Georgia Tech. W. E. Floyd, retiring superintendent, had completed 40 years service with Goodyear. Beginning in 1920 at the company's Los Angeles, Calif., plant, he worked in various production and supervisory capacities before being named assistant superintendent at Cartersville in 1930. He was named superintendent at Cartersville in 1956.

McDonald

James N. McDonald has been named sales manager of American Cyanamid Co.'s fibers division. McDonald, who has held the post of commercial development manager since February of this year, joined Cyanamid from Beaunit Mills, where he was product manager for polyester fibers. Prior to joining Beaunit in 1957, McDonald served for nine years with the Amerotron Division of Textron Inc. In his new post he will direct Cyanamid's sales operations for Creslan acrylic fiber.

Charles E. Rich has been named plant manager of the Manchester, Ga., plant of Callaway Mills Co., succeeding John D. Harris, who has retired after 45 years service. Rich is a graduate of Auburn University with a B.S. in textile engineering. . . . John D. Harris, retiring plant manager, has been plant manager since 1944. Prior to that time he was pay master and office manager. . . . Dr. Gerald E. Hemstadt has joined Callaway as chief product development engineer and will head the product development department of the research and development division. He was previously associated with Artloom Carpet Co. of Philadelphia.

Lavoie

E. P. Lavoie has been named Southern textile service manager of Morningstar-Paisley Inc., with headquarters in Charlotte. He will be available to mills throughout the Southeast for consultation on all of the company's textile products, such as sizes, resins, printing thickeners and finishes and will provide a liaison service between the mills and the firm's textile laboratories. Previously, Lavoie was associated with Wica Chemicals Inc., in the Charlotte area. He has had a number of years of mill experience, during which he served as superintendent of dyeing and finishing at Erwin Mills in

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Cooleemee, N. C. Lavoie has been active in the American Association of Textile Chemists & Colorists since 1936 and is currently secretary of the Piedmont Section.

Cranshaw

Edward Cranshaw has joined the Dixon Corp. as sales manager for its product line of spinning drafting changeovers. Cranshaw previously was spinning division manager in charge of engineering and sales for Draper Corp. For ten years at Draper, Cranshaw sold and engineered rings, spindles, bobbins, bunch builders and accessory parts not directly related to looms. Prior to his Draper connection, he was a textile engineer for Lockwood Greene. Cranshaw is a graduate of Bradford-Textile School in Fall River, Mass., and also has a B.S. degree in mechanical engineering from Rochester University, New York.

Charles K. Watson has been named sales and merchandising manager for the fibers division of Beaunit Mills, New York City. Watson was formerly head of the sales service division of the fibers division.

W. A. Norman has been promoted to the position of manager of Acrilan technical sales service for the Chemstrand Corp. Norman has been serving as fiber quality superintendent since 1959. He joined Chemstrand in 1953 as an engineer at the Pensacola, Fla., nylon plant and later served as technical sales service representative at Decatur, Ala., and as Canadian technical sales representative at Toronto, Canada. He is a graduate of Lowell Technological Institute with a B.S. in engineering.

The appointments of general managers of three newly organized divisions have been announced by General Aniline & Film Corp. Dr. C. C. Schulze has been named to head the Antara Chemicals Division, Joseph W. Conlon the General Dyestuff Division, and Robert J. O'Brien the Collway Pigments Division. The headquarters of the three newly organized divisions of the corporation which formerly comprised the dyestuff and chemical division, will be in New York City. All three of the newly appointed general managers held executive positions in the former dyestuff and chemical division. Dr. Schulze was formerly assistant general manager of the dyestuff and chemical division. Conlon was its director of manufacturing and O'Brien was in charge of its pigments department.

Overcash

Robert J. Overcash has joined Schmidt Mfg. Co., Greenville, S. C., as sales representative for North Carolina and Virginia. Overcash is a graduate of North Carolina State College with a B.S. in textile manufacturing. His past experience includes time with Burlington Industries and the Celanese Corp. of America. Overcash will make his headquarters in Greensboro, N. C.

R. E. Coleman has been named manager of greige goods, job finishing and export sales of Riegel Textile Sales Co., New York City. Coleman was transferred to New York in 1959 from the company's Trion (Ga.) Division. He has been with Riegel since 1955.

Masten R. Dalton has been promoted to executive director of Acrilan for the Chemstrand Corp. succeeding Robert E. Smith who has been named general manager of marketing for the corporation. Dalton has served as director of sales for the company since October 1958. Previously, he was manager of Chemstrand's district sales office at Charlotte. . . . Harry Cramer, formerly manager of the Charlotte district sales office, has been named director of nylon sales. . . . J. Fred Murray has been named manager of fabrics development.

Paul A. Koppe Jr., formerly with Peerless Woolen Mills, Rossville, Ga., has been named manager of Rockford Textile Mills, McMinnville, Tenn. Koppe is a graduate of Philadelphia Textile Institute and has 20 years experience in mill management.

Alexander Smith has been named director of testing at the pilot plant of Hatch Mill Corp., Rutherfordton, N. C.

Vincent B. Wright Jr. of the North Carolina Finishing Co., Salisbury, N. C., has been named chairman of the Piedmont Section of the American Association of Textile Chemists & Colorists. Other officers of the section are: Richard E. Rettew, Polymer Southern, Greenville, N. C., vice-chairman; E. Phillip Lavoie, Wica Chemical Co., Charlotte, N. C., secretary; and Robert L. Ward, Leaksville Woolen Mills, Mount Holly, N. C., treasurer.

Love

J. Spencer Love, president and chairman of the board of Burlington Industries Inc., will be honored by the textile industry at a testimonial luncheon sponsored by the Joint Defense Appeal's Textile Division at the Hotel Astor in New York Thursday, November 22. Love will be cited for his work on behalf of human rights and his activities for public organizations furthering this cause. The J.D.A. is the fund-raising arm of the American Jewish Committee and the Anti-Defamation League of B'nai B'rith.

Edmon G. Luke, president of Amerotron Corp., has been named chairman of the Textile Division of the New York Arthritis and Rheumatism Foundation. Luke heads the group's 1960-61 drive to raise funds in the textile industry.

Four promotions have been announced by Riegel Textile Corp., Ware Shoals, S. C. Henry Bishop, overseer of the Fork Shoals, S. C., mill has been promoted to assistant superintendent of preparations at the Trion Division. . . . David Harrison of Trion has been transferred to assistant superin-

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tendent of weaving, slashing and cloth rooms. . . . Zebbie Bush, overseer of the Ware Shoals Division slasher room has been named overseer at Fork Shoals. . . . R. J. McClellan, second hand in weave room No. 4, will succeed Bush as overseer of the slasher room.

Zahos

Charles E. Zahos has been named field sales and service representative in North and South Carolina for Markem Machine Co., Keene, N. H. Zahos will work out of Charlotte, N. C. . . . Charles H. Cheeseman has moved from North Carolina to Ormand Beach, Fla., as field sales representative in Florida, Southern Alabama and Southern Georgia.

Robert Booth has been named director of manufacturing for the Kendall Co. succeeding John A. Lunn who has retired. Booth joined Kendall in 1942. Prior to the present promotion, he was director of manufacturing of the fiber products division. Lunn joined the company in 1950 and served as vice-president and director of manufacturing. He will continue to serve on the board of directors.

Clifford B. Yager has been named general manager for the Sanforized Division of Cluett, Peabody & Co. Yager joined Sanforized in 1938 after 16 years on the advertising staff of Fairchild Publications.

Westi Hansen has been named industrial products division district manager of sales in Charlotte for Goodyear Tire & Rubber Co. Hansen succeeds W. A. Cooper who has moved to Akron, Ohio, as manager of distributor sales. Hansen will handle sales of conveyor belting, V-belting and a variety of industrial hoses to the textile industry in North Carolina.

Lamar Fleming Jr. has retired as chairman of Anderson, Clayton & Co., New York, cotton marketing firm. Fleming had been chairman of the firm since 1953. He will continue as a member of the board.

Jules Witten has been named president of American & Efird Thread Co., wholly-owned subsidiary of American & Efird Mills, Mount Holly, N. C. Witten succeeds A. W. Bell, who will become vice-chairman of the subsidiary's board. Prior to joining American & Efird, Witten was vice-president of Groves Thread Co. of Gastonia.

Jacques Schloss has been employed as assistant to the president of Cone Mills Corp. with the responsibility for co-ordinating the production and merchandising of newly developed products. A native of Strassburg, Germany, Schloss, who has been in this country for 29 years, is the former president of Sunspun Mfg. Co., Ashboro, N. C., and vice-president in charge of sales for Suwanee Carpets Inc., Chattanooga, Tenn.

De Loach

Francis B. De Loach has been promoted to assistant sales manager of the sizing division of Seydel-Woolley & Co., Atlanta, Ga. Since 1953, De Loach has been technical sales representative in the South Carolina territory. He was previously associated with Chicopee Mfg. Co., Cornelia, Ga.

George H. Hodges has been named superintendent of Climax Spinning Co., Belmont, N. C. Hodges was with the American Thread Co. plant in Newnan, Ga., prior to its closing.

DeWitt C. Morrill has been appointed to the newly-created post of director of public relations for Indian Head Mills, New York City. Morrill will be responsible for all phases of the diversified textile company's public relations program including stockholder relations. Morrill was formerly manager of stockholder relations for Olin-Mathieson Chemical Corp. He served previously as a financial writer for the *Wall Street Journal* and Dow-Jones in New York and Dallas, Tex.

J. Wilson Malloy Jr., an assistant sales manager, and George W. Snyder, a sales-service representative, have been appointed to new duties in the fibers division of Eastman Chemical Products Inc. Malloy, assistant sales manager for Verel Fibers since 1959 in the Eastman Kodak marketing subsidiary, has been reassigned to the Kodel fiber sales group in the same executive capacity. . . . Snyder has been named assistant sales manager for filter products. The two will remain in the headquarter offices at Kingsport, Tenn. Prior to joining the Eastman fibers sales organization in 1952, Malloy was a department supervisor at the Rocky Mount (N. C.) Mills. Snyder, who studied textile engineering at Georgia Tech, joined Tennessee Eastman Co. in 1949 as a textile engineer in the acetate yarn division.

Albert C. Rau of Boston, recognized internationally as the dean of exposition management, was recently honored by the American Textile Machinery Exposition Committee at a luncheon held at the Waldorf-Astoria in New York. The committee, in behalf of the American Textile Machinery Association, presented him with a wrist watch, commemorating 53 years of affiliation with A.T.M.A. Rau, who since 1907, has managed all textile exhibitions held under the auspicies of the A.T.M.A., has

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disclosed plans to retire. John H. Bolton Jr., chairman of the exhibition committee, made the award.

Dougherty

Francis J. Dougherty has been named coordinator for engineering by Turbo Machine Co., Lansdale, Pa. He had been manager of production engineering and process research and development for Tatnall Measuring Systems, division of the Budd Co., Phoenixville, Pa. Before that he was with Burroughs Corp. as service manager and Bendix Aviation Co. as supervisor of quality control. Dougherty is the author of a training manual on rotating electrical equipment used by the Armed Services. He is vice-chairman of the Philadelphia Chapter, on production techniques, of the Institute of Radio Engineers.

Robert J. Koch has been named Southwest regional sales manager for Morse Chain Co., Ithaca, N. Y. Koch's headquarters will be at the new Morse warehouse in Houston, Tex. His territory will include the states of Texas, Louisiana, Mississippi, Oklahoma and southern New Mexico.

Roy Hovis has been named overseer of spinning at Globe Mills, Lincolnton, N. C. Hovis was previously superintendent of Climax Spinning Co., Belmont, N. C.

Frank K. Greenwall, chairman, National Starch & Chemical Corp., was elected president of Keep America Beautiful Inc., at a special meeting of that group's board of directors held recently in New York City. During his 40 years' association with National Starch and predecessor firms, Greenwall has served respectively as salesman, treasurer, vice-president of sales, and director. Keep America Beautiful Inc. is the national public service organization for the prevention of litter and is supported by leading business firms, labor unions and trade associations, representing nearly every major industrial category in the U. S.

Statement Required by the Act of August 24, 1912, as Amended by the Acts of March 2, 1933, and July 2, 1946 (Title 39, United States Code, Section 233), Showing the Ownership, Management and Circulation of Textile Bulletin, published Monthly at Charlotte, N. C., November, 1960.

State of North Carolina
County of Mecklenburg

Before me, a Notary Public in and for the state and county aforesaid, personally appeared Junius M. Smith, who, having been duly sworn according to law, deposes and says that he is the General Manager of Textile Bulletin and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Acts of March 2, 1933, and July 2, 1946, embodied in Section 233, Postal Laws and Regulations, to wit:

That the names and addresses of the publisher, editor and general manager are:

Publisher, Clark Publishing Co., Charlotte, N. C.; editor, Jack Kissiah, Charlotte, N. C.; managing editor, Jack Kissiah, Charlotte, N. C.; general manager, Junius M. Smith, Charlotte, N. C.

That the owner is: Clark Publishing Co., Charlotte, N. C.; John W. Clark, Trustee, Concord, N. C.

That the known bondholders, mortgagees and other security holders owning or holding 1 per cent or more of the total amount of bonds, mortgages, or other securities are: None.

That the average number of copies of each issue of this publication sold or distributed, through mail or otherwise, to paid subscribers during 12 months preceding date shown was: 9,281.

(Signed) JUNIUS M. SMITH,
General Manager.

Sworn to and subscribed before me this 23rd day of September, 1960.

J. F. ECKARD,
Notary Public.

Robert D. Brassil, technical service representative to the textile industry for Food Machinery & Chemical Corp., has moved his headquarters to Charlotte, N. C. Serving customers of the Chlor-Alkali Division, Brassil was formerly located in Charleston, W. Va. He joined FMC last year to assist users of alkali chemicals in the textile process industry. Earlier he had been mill superintendent for Merrimack Mfg. Co. in Lowell, Mass. Brassil is a graduate in chemistry of Lowell Technological Institute. He is a member of the American Association of Textile Chemists & Colorists.

Kelly

J. Clyde Kelly has been named Southern sales manager for Fletcher Industries, Statesville, N. C. Kelly will make his sales headquarters at Southern Pines, N. C. He was formerly sales manager with Textile Specialty Co., Greensboro, N. C., and senior sales engineer with Parks-Cramer Co., Charlotte.

Gilbert Conaway has joined the sales staff of The Duplan Corp., Winston-Salem, N. C. With his headquarters in Duplan's New York sales office, Conaway will handle sales of Duplan's processed and textured yarns. Before joining Duplan, he represented Sniafibres Corp., a subsidiary of Snia Viscosa of Milan, Italy. Previously he was sales head and stylist of all jacquard apparel goods for Burlington Decorative Fabrics, division of Burlington Industries.

Harrington

Warren Harrington has been named technical sales representative for North Carolina and South Carolina by Emkay Chemical Co., Elizabeth, N. J. Harrington has had over 20 years experience with United Piece Dye Works and North Carolina Finishing Co. During the past few years he has been demonstrating and selling chemical specialties. He will make his headquarters in Greensboro, N. C.

Eugene Vallentine has been named superintendent of Bowling Green (S. C.) Spinning Co. Vallentine was formerly superintendent of Nuway Spinning Co., Cherryville, N. C.

Edwin Berliner has joined the staff of Courtaulds (Alabama) Inc., to co-ordinate the licensing program on Prestwick, Courtaulds' new permanent wash-and-wear finish for rayon and rayon/cotton blend fabrics. Berliner received his initial training with the cotton converting firm of Rothschild & Newman and entered the textile converting business in 1915 remaining until 1948 when the firm of Edwin E. Berliner & Co. was liquidated. In 1948 he was appointed a director of Glasgo (Conn.) Finishing Co., and manager of their New York sales office, serving in this capacity until 1951 when Glasgo Finishing was purchased by United Merchants & Manufacturers Inc. He remained with United Merchants in their finishing division from 1951 to the present time.

Lowell

W. Frank Lowell has been elected president of Saco-Lowell Shops. Lowell succeeds Thomas J. Ault who resigned last July. Lowell, formerly senior vice-president of the company, has been associated with Saco-Lowell for over 40 years, and has been a director of the company since 1935. He is a former president of the American Textile Machinery Association. . . . James P. W. Davidson has been named vice-president and will be responsible for all operations, manufacturing and selling of the company's plant in Saco, Me. Davidson previously was executive vice-president of Saco-Lowell's automotive division. He joined Saco-Lowell Shops in 1953, after having been president and general manager of Boston Storage Warehouse Co.

C. Clyde Williams and Loy H. Allen have resigned their positions with Boaz (Ala.) Mills. Williams had served as general manager of the Boaz and Guntersville, Ala., plants for the past ten years. Allen had been manager of the Guntersville plant since it was acquired in 1958. The two did not announce their future plans.

Pacific J. Thomas has been appointed first vice-president and director of engineering, research and development of U. S. Textile Machine Co. He was formerly vice-president and chief engineer. In his new capacity Thomas has named Clifford W. Palm as chief engineer and Joseph Nichols as research technician for Utex Inc., a subsidiary of U. S. Textile Machine Co. Palm received his B.S. degree in textiles from North Carolina State College. From 1951 to 1959, he was associated with the Celanese Corp. of America as textile development engineer and development superintendent. Prior to that, he was with Raybestos-Manhattan Inc. as development engineer in charge of fiber preparation and textile development. Nichols studied textile design with I.C.S. and later concentrated on textile fabric development. He has had wide experience in production control, quality control and fabric development and analysis in various New York and Pennsylvania operations.

Thomas A. Marshall Jr. has been elected executive secretary of the American Society for Testing Materials. Marshall is currently senior assistant secretary of the American Society of Mechanical Engineers. As executive of A.S.T.M., Marshall will head a staff which supports a society of 10,500 members and 6,000 additional committee members. Through its organization of some 85 technical committees, A.S.T.M. devotes its

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efforts to the stimulation of research and to the development of standard specifications and methods of test for materials. . . . Fred F. Van Atta, formerly assistant secretary of the society, was elected to the post of treasurer with responsibility for the business operations of the society.

Aston

David G. Aston has been named to the Caprolan nylon merchandising staff of the fiber marketing department of Allied Chemical Co.'s National Aniline Division. Aston will be active at the retail and mill levels in the development and execution of merchandising programs for Caprolan nylon products. Prior to joining Allied, he had broad fabric merchandising experience with Deering Milliken & Co., Millium Division.

A. A. J. Kramers has been named manager of the textile research department of American Enka Corp., Enka, N. C. Previously, Kramers was head of the synthetic development section of the company's textile research department. Prior to joining Enka in January of this year, he served six years as a member of the research staff of AKU, Enka's parent company, and was most recently head of the AKU textile research department's knitting group. He succeeds Donald J. Godehn, who was appointed director of the marketing technical department.

Lance

Marvin E. Lance, former technical service manager for Duplan Corp., Winston-Salem, N. C., has been appointed export manager to succeed George A. Fenton, who is retiring after 19 years service. Lance has been with Duplan since 1951. A graduate of the North Carolina State College School of Textiles, he will head Duplan's export office which is being moved from New York to Winston-Salem.

Paul Bowie has been named manager of the Liberty Plants of Woodside Mills, Greenville, S. C., and Harold Brissey has been named superintendent. Bowie, superintendent of the plants since 1950, moves up to the managership of the two-plant operation which, at the present, is in a major expansion program. Brissey, formerly assistant superintendent, replaces Bowie as superintendent. He joined Woodside Mills in 1957 as overseer of preparation at the Haynesworth Plant in Anderson and was transferred to Liberty this year. The Woodside Liberty plants produce warp-dyed combed cotton cloth.

Henry L. Ford has been elected president of Eastman Chemical Products In., succeeding Dr. L. K. Eilers, who becomes vice-chairman of the board of directors. Eastman Chemical Products, a subsidiary of Eastman Kodak, markets the fibers, chemicals and plastics manufactured by Tennessee Eastman and Texas Eastman Co. divisions of the company. Ford, a vice-president of both of these Kodak divisions since 1958, began his association with Tennessee Eastman in 1922.

Morris

Henry F. Morris, former manager of Frank S. Nelson & Co., has assumed his duties as manager of the Karastan Spinning Division of Fieldcrest Mills at Greenville, N. C. The woolen spinning plant at Greenville was purchased by Fieldcrest last July to make wool and synthetic carpet yarns for Fieldcrest's Karastan Rug Mill at Leaksville, N. C. Morris will be in charge of all manufacturing operations. In addition to his mill activities, he will purchase all carpet wools. A philadelphia native and a graduate of the Philadelphia Textile Institute, Morris has been in the carpet yarn and carpet manufacturing business since 1927. He was associated with Kitchen & Co., of Philadelphia, in the wool importing business for five years and from 1927 until 1935 operated his own yarn manufacturing business, the H. F. Morris Co., in Philadelphia. For 13 years he was associated with the Mercer Yarn Co., Philadelphia, as manager of carpet yarns. Since 1948 he had been with Frank S. Nelson in Philadelphia, a large supplier of Karastan's woolen yarn for many years.

William T. Eisen, formerly superintendent of Excelsior Mills, Rutherfordton, N. C., has been named production superintendent at the Hatch Mills Corp., Columbus, N. C. William H. Stallworth, former production superintendent, is assisting in the establishment of a blending unit in Spartanburg, S. C. . . . Curtis Hutcherson has been named superintendent of carding replacing Lewis Varner who is temporarily assisting in the establishment of the Spartanburg blending unit.

Brussee

C. Roger Brussee of Minneapolis, Minn., has been named manager of marketing services of Whitin Machine Works. Brussee has been associated with Univis Lens Co., Dayton, Ohio, as director of market research and with the McCulloch Corp., marine division, manufacturers of outboard motors in Minneapolis, as the manager of market research and sales operations. Before joining Whitin, he was marketing manager for the Minneapolis & St. Louis Railway Co.

C. Robert Geiser has been appointed manager of product development for the industrial chemicals division of Pensalt Chemicals Corp., Philadelphia, Pa. Geiser will be responsible for developing new markets and uses for the firm's products. . . . Robert O. Rowe has been named product manager of the industrial chemicals division. Rowe will supervise sales for such products as amyl alcohols and acetates; alkyl and alkylol amines; hydrocarbons and olefins; and ureas and thioureas.

Dr. Howard J. Philipp has been named to the newly established position of vice-president of planning at Celanese Fibers Co., Charlotte, N. C. Dr. Philipp joined Celanese in 1945 as a chemist at the company's Cumberland, Md., plant. He has served in various positions of responsibility with the company and for the past year, Dr. Philipp

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had been planning director. A native of Austria, he was educated at the University of Vienna, obtaining his Ph.D. degree in physical chemistry from that institution in 1935.

Fred J. Weir Jr., of the industrial engineering staff of The Kendall Co.'s textile division, has been appointed assistant to the manager of the company's Pelzer, S. C., plant. Weir, a native of Newberry, S. C., is a graduate of Clemson College. Prior to joining The Kendall Co. in June, Weir was with Clinton (S. C.) Cotton Mills. From 1958 to 1960, he was superintendent of Newberry (S. C.) Mills.

Brownley

John W. Brownley has been named vice-president of manufacturing of Industrial Rayon Corp., Cleveland, Ohio. Before joining Industrial Rayon in 1959, Brownley was executive vice-president of Industrias Consolidadas de Matanzas, major rayon producer in Cuba. He was chief engineer of Industrias Consolidadas in 1946 when that company built its rayon plant in Mantanzas using Industrial Rayon's continuous process. In that capacity, he was responsible for the installation of equipment and start-up of the plant. He was named vice-president of production at Industrias Consolidadas in 1952 and was elected executive vice-president of manufacturing and sales in 1958. A graduate of Virginia Polytechnic Institute, Brownley was with Du Pont in management posts at its Richmond, Va., and Buffalo, N. Y., rayon plants prior to joining Industrias Consolidadas.

Roger Milliken, president of Deering Milliken Inc., has been elected a director of Arthur D. Little Inc., international industrial research and consulting company. Milliken is a director of the First National City Bank of New York; W. R. Grace & Co.; Mercantile Stores Co.; and Southern Bleachery & Print Works. His other activities include serving as chairman of the board of the Institute of Textile Technology and as trustee of the Foundation for Economic Education.

J. Clifton Plowden Jr. has been named secretary of Woodside Mills, Greenville, S. C. Plowden joined Woodside in 1958 after being with Springs Cotton Mills, Lancaster, S. C., for three years. He is a 1948 graduate of Furman University with a degree in business administration.

Robert E. Smith has been promoted to the position of general manager of marketing for The Chemstrand Corp., New York City. Smith has served as executive director in charge of Acrilan for the corporation since August 1958. Previously, he was manager of Acrilan acrylic fiber sales. Before joining Chemstrand in 1951, Smith had served in executive capacities in the textile industry for 11 years.

OBITUARIES

Lawrence Francis Dulligan, 70, retired superintendent of the Lowell Bleachery South in Griffin, Ga., died October 13 at his home in Griffin. Mr. Dulligan supervised the building of the bleachery in 1922. He retired in 1946 because of his health. Survivors include his widow and two daughters.

William Thomas Hall Jr., 46, secretary of Textile Products Co., Belmont, N. C., died September 19 after a brief illness. Survivors include his widow and his parents.

John Bascom Holt, 87, retired textile plant superintendent who has worked at mills in Waxhaw, Rock Hill and Pendleton, S. C., and in Bessemer City, Gastonia and Mount Holly, N. C., died September 15. His widow and two sons survive.

Roger McCallum, 60, personnel director of Lyman (S. C.) Printing & Finishing Co., died September 19. Mr. McCallum joined the Lyman plant in 1954 after serving for 15 years with Pacific Mills in Columbia. His widow survives.

George O. Trudeau, 49, sales engineer for Holyoke Machine Co., Holyoke, Mass., died October 10 at his home in Holyoke, Mass. Mr. Trudeau was a design engineer at Holyoke from 1947 to 1949 when he was named sales engineer.

(See also, Plane Crash, P. 86)

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

KINGS MOUNTAIN, N. C. — Craftspun Yarns Inc., division of the Scranton (Pa.) Corp., has been purchased by an undisclosed syndicate currently operating in the same phase of the textile industry. E. Stanley Marks, New York attorney acting for the buyers, said that the group expects to continue the firm's present operations. The parent organization, Scranton Corp., is reorganizing under the federal bankruptcy act and was given permission to conclude the sale by Judge John W. Murphy of the Pennsylvania Middle District Court. Purchase price was $460,000.

HAZELHURST, GA.—Hazelhurst Mills, division of Patchaque Plymouth Corp., is increasing its plant space by about 35,000 square feet. The new structure will be used for manufacturing double backing for carpets and carpet yarns, and for storage.

NEW YORK, N. Y.—Reeves Bros. reports net profits of $2.3 million in the fiscal year ended July 2, as compared with $975,000 for the previous fiscal year. Net sales for 1960 were $71.8 million as compared with $62 million last year. The improvement was attributed to the healthier market conditions in its continuing diversification program. For the first quarter ended October 1, a profit decline of 88% was reported by the company. Net for the period was $60,749 as compared with $507,931 for the first quarter of 1959. Sales dropped from $14.1 million in 1959 to $12.9 million this year.

KANNAPOLIS, N. C.—The Cannon Mills Co. reports a sharp rise in earnings in the first six months of this year. Net income for the period was $5.5 million as compared with $2.6 million in the comparable period of 1959. Net sales increased to $99.8 million as compared with $96.7 million in the first six months of 1959.

GAFFNEY, S. C.—A new $5 million printing and finishing plant is being completed near here for the Broad River Printing & Finishing Co. The facility is being built by Kahn-Southern Co. for an undisclosed group.

SHELBY, N. C.—Lily Mills Co. here has been acquired by Belding Hemingway Co. of New York City and will be operated as a wholly-owned subsidiary of the New York firm. The Lily name will be retained as well as its present manufacturing and selling organization and management team. The deal was consumated through an exchange of stock, involving the purchase of assets of Lily.

WEST POINT, GA.—Net profit of West Point Mfg. Co. increased 35% in the fiscal year ended August 27, while sales increased 8%. Net profit for the year was $8.2 million as compared with $6 million in 1959. Net sales for the year totalled $156.9 million as compared with $145.6 million last year. Construction of a new central cotton warehouse is underway near Fairfax, Ga. The new $631,000 structure will provide storage areas and house the operation of its cotton department.

SPARTANBURG, S. C.—Deering Milliken Research Corp. is adding a new chemical research pilot plant at its large facility here. A $60,000 addition to the center will be completed shortly, the company reports. Roger Milliken, president, said that the plant is a necessary second stage in the development of chemicals before they are put in full scale production.

NEW YORK, N. Y.—A gain of 15% in net profits and 13% in sales has been reported by United Merchants & Manufacturers for the fiscal year ended June 30. Net earnings in the year totalled $14.3 million as compared with $12.5 million in the previous fiscal year. Net sales aggregated $468.2 million against $414.7 previously. Not included in the sales figure are intercompany sales of $31.9 million in fiscal 1960 and $30.9 million in 1959. The company reports that export sales increased substantially because of improved monetary conditions throughout the world. The company's retail operation, Robert Hall Clothes Inc., continued to expand and during the year added 30 new stores—bringing the chain to 327 units. United Factors, UM&M's commercial factoring organization, reported a substantial increase in volume and profits.

SEVIERVILLE, TENN. — Cherokee Textile Mills has placed an order with Whitin Machine Works for a total of six new Model N Standard spinning frames. Delivery is expected to take place early next year.

NEW YORK, N. Y.—Net profits of Collins & Aikman Corp. declined 30% in the first half of the current fiscal year in spite of a 31% increase in sales, the company reports. The drop was attributed to the expense connected with its modernization and expansion program and to the more competitive business conditions. Profits in the first six months ended August 27 were $452,000 as compared with $646,000 in the comparable period of 1959. Sales amounted to $30.7 million as compared with $23.4 million in the first half of 1959. The company reports that its central purchasing office has been transferred as one operation to the new staff building attached to the firm's Albemarle, N. C., plant.

ANDERSON, S. C.—Work has begun on a new $3 million Clark-Schwebel fiber glass plant. The plant is expected to be in production by early next year. The company will engage in the weaving and finishing of fiber glass goods.

CASAR, N. C.—The unoccupied plant of Casar Mfg. Co. will be reopened as a spinning mill next year and will employ 15 to 20 persons initially. L. Edwin Rudisill, who has leased the building for five years, says that present plans are to produce coarse carded yarns of cotton and synthetic fibers. Rudisill heads R & S Mfg. Co. in Cherryville, N. C., and Balston Yarn Mills in Lincolnton, N. C.

BOSTON, MASS. — Sales and before-tax earnings for the Kendall Co. during the first 36 weeks of 1960 compare favorably with 1959 results, the company reports. Sales for the first 36 weeks were $76.8 million compared with sales of $77.3 million for the similar period last year. Earnings before taxes of $6.8 million were slightly ahead of earnings for the same period of last year. Net earnings after taxes, however, are off about 6%, due to a higher provision made for federal, state and Canadian income taxes. Kendall sales of $24.9 million for the 12 weeks ended September 3, 1960 were slightly lower than sales of $25.5 million for the comparable period a year ago. Net earnings for the current period of $1 million compare with $1.3 million for the same 12-week period of 1959.

KINGS MOUNTAIN, N. C.—Mauney Mills has placed an order with Whitin Machine Works calling for a Model M6 Even-Draft drawing frame; a Model H1 Super Lap machine; four Model J6 combers; a Long-Draft roving frame, 10x5; and 12 Model N Standard spinning frames.

NEW YORK, N. Y.—Indian Head Mills reports sales of $50.6 million for the nine months ended August 27 as compared with $40.9 million in the comparable period of 1959. Net operating profit was $2 million as compared with $1.8 million in the previous period. No provision for Federal income taxes was required in either year due to the availability of loss carryovers.

ANNISTON, ALA. — Johnson & Johnson, parent concern of Chicopee Mfg. Corp., has acquired all the outstanding stock of Anniston Mfg. Co. No change in the corporate structure of Anniston is contemplated. General management of Anniston will be under the direction of Chicopee.

SUMMERVILLE, GA. — An election scheduled to be held by the National Labor Relations Board at the Georgia Rug Mill here has been called off by the Textile Workers Union of America. The mill is a subsidiary of Bigelow Sanford Carpet Co.

NEW YORK, N. Y. — A major expansion and improvement program for its three yarn spinning and dyeing plants in the South has been started by the Franklin Process Division of Indian Head Mills. Expansion of the company's Greenville, S. C., plant is nearing completion and an addition is planned for the Fingerville, S. C., plant. Together, the expansions will add approximately 40,000 square feet of manufacturing area. Additional stainless steel dyeing machines with automatic controls and hot water and heat reclamation facilities are planned for Greenville and for the company's Chattanooga, Tenn., plant. Daniels Construction Co. is the contractor at Greenville. The enlarged Southern facilities will enable the company to continue serving customers who have been supplied from its Philadelphia, Pa., plant, which is to be closed within the next few months. Executive and sales offices for the division will remain in Philadelphia.

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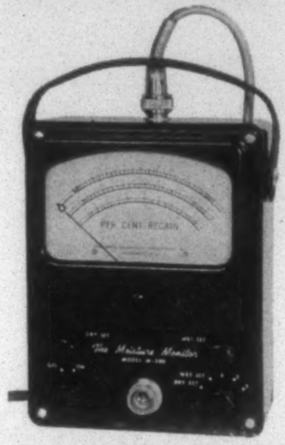

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textile bulletin

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TEXTILE BULLETIN is devoted to the dissemination of information and the exchange of opinion relative to the spinning and weaving phases of the textile industry, as well as the dyeing and finishing of yarns and woven fabrics. Appropriate material, technical and otherwise, is solicited and paid for at regular rates. Opinions expressed by contributors are theirs and not necessarily those of the editors and publishers. ¶ Circulation rates are: one year payable in advance, $1.50; two years payable in advance, $2.00; one year, Canada, $3.00; one year, other countries in Postal Union, $5.00; single copies, 25 cents. ¶ A companion monthly journal, THE KNITTER, is published by Clark Publishing Co. and devoted to the interests of the knitgoods manufacturing industry.

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What's The Earnings Outlook?

IN its issue of October 10, *The Value Line Investment Survey*, published by Arnold Bernhard & Co., investment advisers, New York City, estimates that textile industry earnings for calendar year 1960 will approach $350 million, 16% below 1959 and approximately equal to 1955-56 earnings.

Earnings in the year ended September 30, 1960, the *Survey* points out, were about 13% below the most recent peak (12 months ended March 31). The bottom of the peak is expected in the year ending June 30, 1961.

Like most observers, the *Survey* believes that the current slow-down, and Arnold Bernhard terms it "the 1960-61 business recession," is a very critical period for the textile industry. It will provide the acid test as to whether the industry is wisely determined to keep production in balance with demand, or whether it will succumb to another "period of profitless prosperity."

The bottom of the current cycle—when it comes—is not expected to be as deep as the dips of 1954 and 1958. This is partially attributable to the industry's efforts toward maintaining a more favorable production-demand balance. And also because the industry's excess capacity is not as sizeable as it was during the previous periods. The *Survey* estimates that excess capacity is now on the order of 15% relative to normal demand; roughly half what it was five years ago. "In 1953," the *Survey* notes, "aggregate net income was about $286 million. The next 12-month peak (early 1956) saw profits rise to $352 million. The most recent peak, early 1960, yielded earnings of $429 million. In 1963-65 we project over-all earnings to $440 million. The 1954 low was $110 million. In 1958 the 12-month low was $166 million. In 1961 we estimate the low at $320 million—a much smaller percentage decline than in the last two recessions."

The severity of the 1954 and 1958 declines was awesome. From the 12-month peak in 1953 of $286 million, earnings dropped to $110 million in September 1954—a 62% decline. From a March 1956 high of $352 million, industry earnings plunged to $166 million in September 1958—a drop of 53%. A 25% decline is estimated for the current period ending next June. An estimated one-half of this decline has already set in, with the months of July, August and September showing a drop of about 11%.

Reviewing textile shares as investments, the *Survey* thinks there is a good chance that if the shrinkage in profits can be limited in the current recession to the degree estimated by Bernhard, the investment status of textile shares will definitely move up.

"It will mean that present dividend rates of many leading companies can be maintained," the *Survey* points out. "Burlington Industries cut its dividend in 1954 and in 1957-58; we do not estimate a cut in 1961. Lowenstein cut its dividend twice in 1958; we do not estimate a cut in 1961. Celanese cut its dividend in 1954 but did not cut in 1958, and raised its dividend in 1959 and again this year. The present rate is safe. American Viscose held its dividend in 1954 but cut in 1958. We believe the $2 rate (restored in 1959) can be maintained. J. P. Stevens cut in 1954 but not in 1958. We look for no cut in 1961.

"Note the high current yields presently available from many of these textile equities. Based on dividend rates now in effect, Burlington yields 7.1%; Lowenstein, 6.7%; American Viscose, 6.1%; J. P. Stevens, 6.0%; United Merchants, 5.9-6.5% . . . Returns as generous as this are characteristic of volatile, low quality equities whose dividend rates are likely to be reduced in time of business adversity. If leading textile companies can earn enough in the present recession to justify continuation of present dividend rates, they will definitely merit some upgrading in their now-marginal investment stature."

On the basis of the industry's past performances, the *Survey's* outlook is going against heavy odds. But it concedes that this optimism can turn sour overnight. It all hinges on how well the industry will face up to the necessity of keeping a tight rein on its output.

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TEXTILE INDUSTRY SCHEDULE

Nov. 5 (Sa)—Fall meeting, **NORTHERN NORTH CAROLINA-VIRGINIA DIVISION, SOUTHERN TEXTILE ASSOCIATION,** Proximity School, Summit Avenue, Greensboro, N. C. (Meeting opens 10 a.m.)

Nov. 12 (Sa)—Fall meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES,** Thach Auditorium, Auburn University, Auburn, Ala. (Carding and Spinning Section).

Nov. 12 (Sa)—Annual meeting, **GEORGIA TEXTILE EDUCATION FOUNDATION,** A. French Textile School, Georgia Tech, Atlanta.

—1961—

Feb. 2-4 (Th-Sa.)—**MATERIAL HANDLING SHORT COURSE,** Georgia Tech, Atlanta (Sponsored by Georgia Tech School of Industrial Engineering and the American Material Handling Society).

Mar. 16-17 (Th-F)—Textile Engineering Conference, **AMERICAN SOCIETY OF MECHANICAL ENGINEERS,** Clemson College.

Apr. 16-18 (Su-Tu)—Spring meeting, **NARROW FABRICS INSTITUTE,** The Tides Inn, Irvington, Va.

Apr. 18-19 (Tu-W)—Spring meeting, **TECHNICAL ADVISORY COMMITTEE** and **BOARD OF TRUSTEES,** Institute of Textile Technology, Charlottesville, Va.

Apr. 26-29 (W-Sa)—Annual meeting, **GEORGIA TEXTILE MANUFACTURERS ASSOCIATION,** Hollywood Beach Hotel, Hollywood, Fla.

May 6 (Sa)—Spring meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES,** Thach Auditorium, Auburn University, Auburn, Ala. (Slashing and Weaving; Meeting opens 10 a.m.)

May 10-12 (W-F)—Thirty-first annual **NORTH CAROLINA STATEWIDE INDUSTRIAL CONFERENCE,** Jack Tar Hotel, Durham, N. C.

Oct. 28 (Sa)—Fall meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES,** Thach Auditorium, Auburn University, Auburn, Ala. (Carding and Spinning; Meeting opens 10 a.m.)

Nov. 13-15 (M-W)—Fall meeting, **NARROW FABRICS INSTITUTE,** Statler-Hilton Hotel, New York, N. Y.

(M) Monday; (Tu) Tuesday; (W) Wednesday; (Th) Thursday; (F) Friday; (Sa) Saturday

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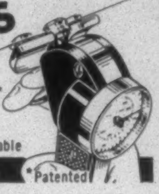

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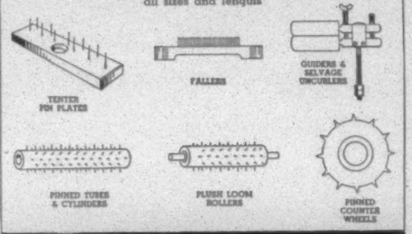

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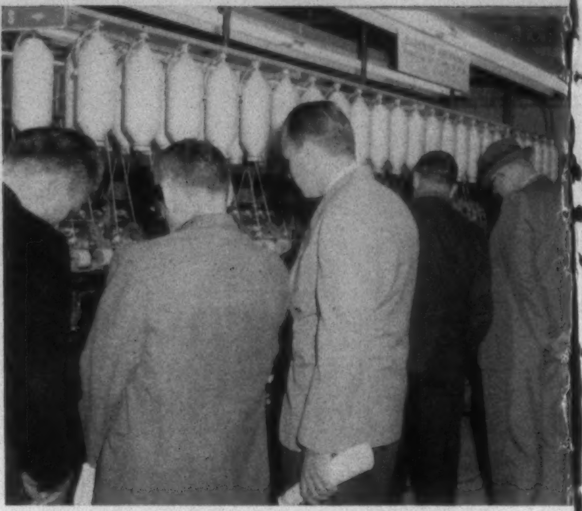

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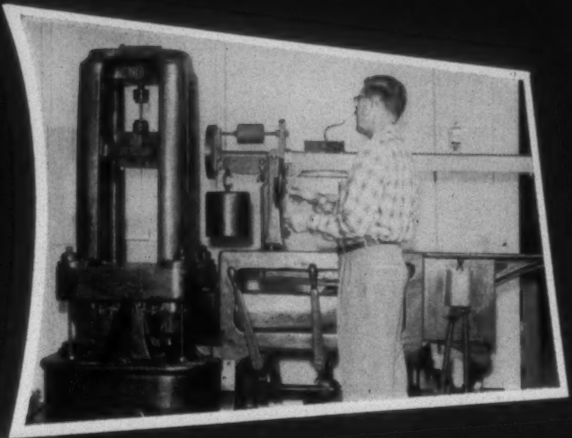

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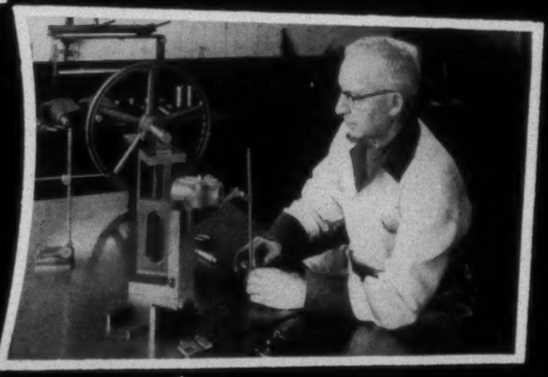

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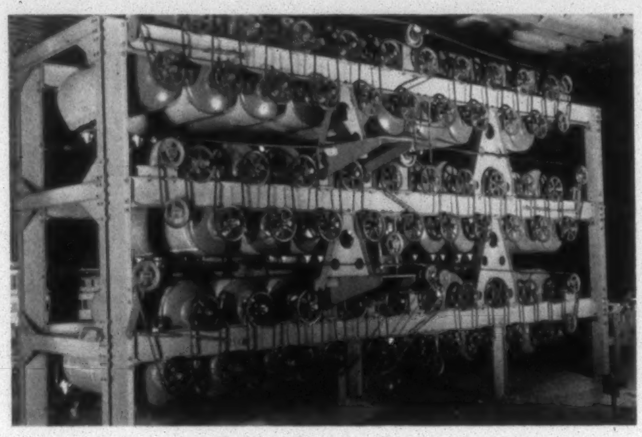
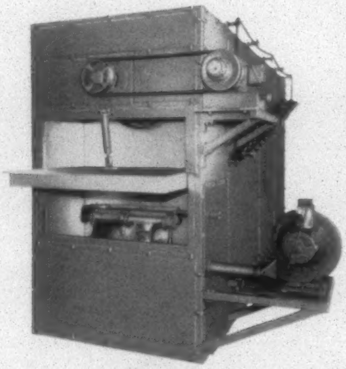
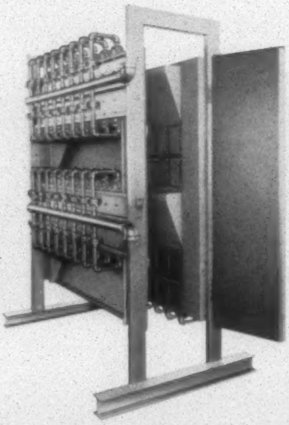


Stainless Steel Can Dryers

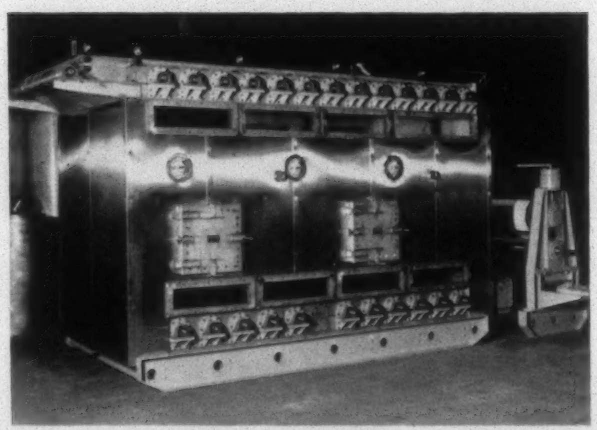
Open width Washers & Boil-off Machines



Gas fired Air Dryers and Curers



Gas fired (Infra-red) Pre-Dryers



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